THE CENTER
for Environmental Management of Military Lands

INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN 2002–2006

FORT RICHARDSON, ALASKA
UNITED STATES ARMY ALASKA

Center for Environmental Management of Military Lands
Colorado State University
Fort Collins, Colorado 80523-1490

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3 DECEMBER 2001
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INTEGRATED CULTURAL RESOURCES MANAGEMENT PLAN

FORT RICHARDSON, ALASKA

ACRONYMS USED

AFB - Air Force Base
AHRS - Alaska Heritage Resources Survey
ALCOM - Alaska Command
ANC - Anchorage
AP - Army Pamphlet
AR - Army Regulation
ARPA - Archeological Resources Protection Act
BLM - Bureau of Land Management
BP - Years Before Present
CFR - Code of Federal Regulations
CRM - Cultural Resources Manager
DoD - Department of Defense
DPTSM - Directorate of Plans, Training, Security, and Mobilization
EO - Executive Order
ERF - Eagle River Flats
FR - Federal Regulation
FRA - Fort Richardson, Alaska
GIS - Geographic Information System
HABS - Historic American Buildings Survey
ICRMP - Integrated Cultural Resources Management Plan
ID - Infantry Division
INRMP - Integrated Natural Resources Management Plan
ITAM - Integrated Training Area Management
LRAM - Land Rehabilitation and Maintenance Program
MOA - Memorandum of Agreement
NAGPRA - American Graves Protection and Repatriation Act
NEPA - National Environmental Policy Act
NHPA - National Historic Preservation Act
NPS - National Park Service
PA - Programmatic Agreement
PAO - Public Affairs Office
PLO - Public Land Order
PMO - Provost Marshal's Office
SHPO - State Historic Preservation Office
SOP - Standard Operating Procedures
TA - Training Area
USARAK - United States Army, Alaska
USARAL - United States Army, Alaska (historic)
USARPAC - United States Army, Pacific
USGS - U.S. Geological Survey

1.0 EXECUTIVE SUMMARY

This Integrated Cultural Resources Management Plan (ICRMP) provides guidance and procedures to enable U.S. Army Alaska (USARAK) to meet its legal responsibilities at Fort Richardson for identification, evaluation, and protection of cultural resources while causing the least disturbance to the military mission. This plan is the implementing document for the cultural resources program on Fort Richardson during 2002-2006. It outlines procedures for cooperation with the Alaska State Historic Preservation Office (Alaska SHPO) in cultural resources management. Army requirements relating to development and approval of ICRMPs are outlined in Army Regulation (AR) 200-4, *Cultural Resources Management*.

Cultural resources under the stewardship of Fort Richardson consist of archeological sites and historic properties. During 2002-2006 USARAK will implement the following programs on Fort Richardson to fulfill requirements to inventory, evaluate, nominate, and preserve cultural resources, based on availability of funds:

- archeological reconnaissance survey of areas with high cultural resources sensitivity and significant training impacts;
- evaluation of the eligibility of archeological sites and historic properties for the National Register, as the need arises;
- procedures for nominating eligible properties to the National Register;
- enforcement of the Archeological Resources Protection Act;
- implementation of a cultural landscape approach in cultural resources planning;
- consultation with the Alaska SHPO and Advisory Council on Historic Preservation;
- preservation and mitigation of historically significant cultural resources;
- stabilization and maintenance of Nike Site Summit Historic District;
- consultation with Native Alaskan entities; and
- communication with the public.

Implementation of this ICRMP will efficiently meet USARAK's obligations for compliance with cultural resources legislation while minimizing effects on the military mission. The plan goes beyond minimal compliance to accept the leadership role that the National Historic Preservation Act (NHPA) envisions for Federal agencies... to manage cultural resources "*in a spirit of stewardship for the inspiration and benefit of present and future generations"* (NHPA, Section 2(3)). Per AR 200-4, this ICRMP will be reviewed annually and updated at least every five years.

An Environmental Assessment (EA) and a Finding of No Significant Impact (FNSI) have been prepared for the implementation of the ICRMP. These environmental documents are required by the National Environmental Policy Act (NEPA) of 1969. The EA and FNSI are found at Appendix F.

2.0 OVERVIEW

Fort Richardson is headquarters for USARAK. The installation occupies 61,000 acres in southcentral Alaska (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a). The Fort Richardson cantonment area is approximately seven miles northeast of downtown Anchorage. The installation lies between two prominent natural features, the Knik Arm of Cook Inlet to the north and the Chugach Mountains to the east.

2.1 Mission Statement

USARAK, comprised of the Army's active-duty forces in Alaska, is a subordinate command of U.S. Army, Pacific (USARPAC). The mission of USARAK is:

> "Provide trained, ready forces for worldwide military operations; and achieve family readiness and community well-being; while exploiting joint training opportunities and operating a force projection platform."

Major units of USARAK are the 172nd Separate Infantry Brigade and U.S. Army Garrison, Alaska. USARAK manages three military installations: Fort Richardson, Fort Wainwright, and Fort Greely.

In addition to serving as USARAK headquarters, Fort Richardson is an important support base, with the majority of USARAK combat forces stationed at Fort Wainwright. Units stationed at Fort Richardson include Task Force 1-501st Infantry, 172nd Separate Infantry Brigade and U.S. Army Garrison, Alaska, supporting USARAK's combat forces (U.S. Army Alaska, 1995: 6).

2.1.1 Training Areas

Fort Richardson has 16 major training areas (TA). TA 16 is used for the Alaska National Guard facility. TA 15 is small and relatively isolated. TAs 1, 2, 6, 7, 8, 9, 10, 11, 12, and 14 are subdivided using letter designations.

Fort Richardson Training Areas

Training Area	Acres	Size Unit	Training Area	Acres	Size Unit
1	6,813	Company	9	1,330	Platoon
2	2,492	Platoon	10	1,072	Platoon
3	1,195	Platoon	11	5,110	Platoon
4	836	Platoon	12	6,444	Platoon
5	1,257	Company	13	2,937	Platoon
6	1,010	Platoon	14	5,208	Company
7	2,182	Platoon	15	2,768	Platoon
8	2,244	Platoon			

2.1.2 Training Facilities

Fort Richardson's training facilities consist of maneuver areas, small arms ranges, landing zones, drop zones, and artillery/mortar firing points. Major facilities are listed below (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a).

- Malamute Drop Zone (214 acres, being expanded by 200-300 acres) for support of strategic airborne operations. This drop zone can support a company size operation.
- Davis Range Complex (1,333 acres) for live fire training. Facilities include a platoon battle course, a defensive trench system, ambush and defensive sites, and several live fire courses.
- Biathlon Range (692 acres) for training in Arctic combat. The range has three ski trails and an arms range for firing M16 and 22 caliber rifles.
- Aerial Target Range for training in engagement techniques for aerial targets.
- Demolition Range.
- McLaughlin Range Complex (692 acres) for live fire training of the LAW AT4 and Mark 19.
- Eagle River Flats for mortar and artillery firing from approximately 30 firing points on North Post.
- Landing Zones (about 25) for helicopter assaults.
- Mahon Range.
- Fieldfire Range.
- Statler-Newton Small Arms Range for .38 and .45 caliber pistols.
- Oates-McGee Range for M-60 firing at 500 to 1,000 feet.
- Grezelka Range for M-16 and M-60 training and qualification.
- Zero Range.
- Record Range for M-16 qualification.
- Pendeau Range for M-16 and M-14 training.
- Grenade Range.
- Shoot House Range.
- Off-Duty Range.
- 40 mm Range.

2.2 Historical Perspective

2.2.1 General

Fort Richardson was established by Presidential Executive Order in 1939 as Elmendorf Field. The site north of Anchorage was chosen because of relatively favorable weather patterns and access to two important transportation assets, the Alaska Railroad and Cook Inlet. The name Fort Richardson was adopted by the War Department roughly a year later in memory of Brigadier General Wilds P. Richardson, a Texas engineer who surveyed and supervised construction of Alaska's first highway and served as commander of the American Expeditionary Force, North Russia (U.S. Army Alaska, 1971).

During World War II Fort Richardson was tasked with defending Alaska from invasion and coordinating the Alaskan war effort. Before the outbreak of World War II, military strength in Alaska was less than 3,000; it soon grew to 7,800 troops stationed on Fort Richardson alone, including the 4th Infantry, 81st

Field Artillery, and 75th Coast Artillery (Anti-Aircraft). As the war progressed, Fort Richardson's mission expanded significantly to become the logistics base for numerous Army garrisons and the Air Corps.

During the Cold War Fort Richardson performed primarily a training and administrative support role for Army forces in Alaska. In 1947 Fort Richardson became headquarters for the newly established U.S. Army Alaska (USARAL). USARAL was superseded by the 172 Infantry Brigade (Alaska) in 1974 and finally by the 6th Infantry Division (Light) in 1986. Following the Cold War, the 6th Infantry Division (Light) was deactivated, and Army forces were reorganized under U.S. Army Alaska.

2.2.2 Land Acquisition

Fort Richardson encompasses approximately 61,000 acres. Due to federal ownership of most land in Alaska in the 1940s, most land was acquired for military use by Executive Orders and Public Land Orders. Several small parcels of private land, *e.g.*, homesites and homesteads, were also purchased.

In 1939, an Executive Order (EO) was issued that removed 36,570 acres of land withdrawn from appropriation into War Department jurisdiction. This land, along with small fee based (private land) acquisition and sequential EOs and Public Land Orders (PLO), makes up the predominant land base of Fort Richardson today.

Between 1939 and 1945 approximately 151,180 acres of land were withdrawn for military use. In 1950 9,042 acres (including most of the cantonment) were turned over to the Air Force with the establishment of Elmendorf Air Force Base.

From 1945 to 1955 the military returned approximately 85,000 acres to the Department of the Interior. Many original EOs had a stipulation that at the end of the national emergency the land would be returned to the Department of the Interior. A letter from the Secretary of the Interior, dated Oct. 27, 1952, granted permission to the military to retain jurisdiction over withdrawn lands until they were not needed for military use. From 1955 to 1965 the Department of the Army released approximately 10,000 acres to various entities such as the U.S. Air Force, State of Alaska, and the Bureau of Land Management (BLM), and acquired approximately 6,000 for Army use. From 1966 to the present Fort Richardson's boundaries have remained fairly stable. Leases from the BLM have expanded the boundary to the west and retracted it in the southwestern corner when the military released land back to BLM.

2.3 Environmental Setting

2.3.1 Geology / Paleogeography

Geology of the Fort Richardson area was shaped by the formation of the Chugach Mountains in the late Paleozoic and Mesozoic eras and the subsequent flow of sediments into lowlands during the Tertiary period (Gossweiler, 1984). The Chugach Mountains have a bedrock of metamorphic rocks of the McHughs complex composed of a mixture of metamorphose siltstone, lithic sandstone, arkose, and conglomerate sandstone (CH2M Hill, 1994). Lowland bedrock is composed of sedimentary rocks of conglomerate sandstone, mudstone, and coal. It is connected with metamorphic rocks of the mountains along the vertical Border Ranges Fault that lies at the base of the Chugach Mountains (CH2M Hill, 1994). The bedrock in lowlands rarely surfaces, covered by thick deposits of unconsolidated material that accumulated during the Quaternary Period, one million to ten thousand years ago (Gossweiler, 1984).

Fort Richardson straddles both the alluvial fan gravels of the Anchorage plain and the moraine and glacial alluvium complex near the shore of Knik Arm. The gravel alluvium of the Anchorage plain underlies the main cantonment. Well-bedded and well-sorted gravels and sands provide good foundation conditions and plentiful construction material. The confined gravel aquifer is 200 to 400 feet below the surface in this area of the post (Selkregg *et al.*, 1972). Groundwater in this confined aquifer flows generally west to northwest. (CH2M Hill, 1994)

Just north of the cantonment area is the southern edge of the Elmendorf Moraine, a hummocky, long series of ridges running east-west across Fort Richardson and Elmendorf AFB. Elevations of the moraine rise to more than 300 feet, especially in the west. The moraine is chiefly till, including diamicton and poorly sorted gravel. North of the Elmendorf Moraine is a complex of moraine and glacial alluvium deposits in the form of irregularly shaped hills. (CH2M Hill, 1994)

The complex of hills just south of Eagle River Flats is part of this glacial alluvium deposit. Further north, on either side of Eagle River Flats, are more moraine deposits. These deposits are more subdued in topography than the Elmendorf Moraine (CH2M Hill, 1994).

2.3.2 Soils

Fort Richardson has shallow, immature soils low in primary nutrients. In lowlands, most soils support a mixed coniferous-hardwood forest; these soils are relatively infertile and acidic (Gossweiler, 1984). As a result of depleted colloids, iron, and aluminum, the lower part of a horizon is often grayish-white or ash colored (Gossweiler, 1984). In depressions and saturated areas, surface horizons are characterized as moss-covered peats.

In 1979 an *Anchorage Area Soils Survey* (Soil Conservation Service, 1979) was completed that included Fort Richardson (up to 1,500 feet elevation) and Elmendorf AFB. Major soil series and their erodibility are summarized below.

- ***Homestead series***: Homestead silt loam is the most common type of soil on the post. It is a shallow, well-drained soil formed in loess over very gravelly drift on moraines and outwash plains. Terrain is from level, to rolling, to strongly sloping. Permeability is moderate to moderately rapid. Runoff ranges from slow to very rapid, and the erosion hazard is slight to severe.
- ***Purches series***: This moderately well drained to somewhat poorly drained silt loam is found on muskeg borders and slight depressions in glacial moraines. It has a surface layer of black silt loam and a subsurface layer of gray silt loam. The subsoil is mottled dark brown, and the substratus is grayish brown. It was formed in glacial till. The terrain is smooth to moderately sloping. Permeability is moderate to moderately slow in the more compact till. Available water capacity is low, and erosion hazard is low to moderate.
- ***Kasilof series***: This excessively drained silt loam is found on outwash plains and stream terraces. It was formed in a thin mantle of loess over very gravelly alluvium. The surface layer is dark gray silt loam. Subsoil is dark brown gravelly loam, and the substratum dark olive gray, very gravelly sand. Runoff is slow to rapid, and erosion hazard is slight to severe. This soil series is a potentially severe threat for flash flooding.
- ***Jacobsen series***: This very stony silt loam is poorly drained and found in small valleys, shallow depressions, and low-lying areas bordering muskegs. It was formed in very stony glacial till. A

typical soil profile has a peaty surface mat covering a black, very stony silt loam layer. Stones and cobbles make up about 40 percent of the volume, and gravel makes up about 20 percent. The water table is normally less than two feet below the surface. Permeability is moderate, and the erosion is hazard slight.

- ***Doroshin series***: This soil series is comprised of peat over a substratum of dark greenish gray silt loam. It is poorly drained and found in muskeg borders and depressions in glacial moraines. Permeability is moderate. Runoff is very slow to moderate, and the erosion hazard is slight.
- ***Salmatof series***: This soil is comprised of dark reddish brown coarse peat materials. It is very poorly drained and occurs in broad basins and depressions. The water table is usually near the surface.
- ***Tuomi series***: This silt loam soil is well drained and occurs on low moraines. The soil consists of silt loam over sandy loam and has moderate permeability. Runoff is slow to medium, and the hazard of erosion is slight to moderate.
- ***Slikok series***: This soil is a mucky silt loam occurring in valley bottoms and low areas around lakes or muskegs. The soil has a peaty surface layer. Terrain is nearly level. The soil has a high water capacity and a moderate permeability. Surface runoff and erosion hazard are moderate.
- ***Caswell series***: This series consists of coarse silt loam formed in silty and sandy waterlaid sediments over gravelly sand. It occurs on low terraces and in broad depressions. Water capacity is moderate, and permeability is moderate to rapid. Surface runoff is slow, and erosion hazard is slight. The water table is normally 2 to 4 feet below the surface.
- ***Clam Gulch series***: This series consists of deep, poorly drained silt loam that occurs in flood plains and in depressions in glacial moraines. It has dark silt over gray sediments that are high in clay. Water capacity is high, and the water table is often near the surface. Surface runoff is slow to rapid, and the erosion hazard is slight to severe.
- ***Chena series***: This series consists of sandy-skeletal silt loam that is excessively drained. It occurs in alluvial fans and flood plains. The substratum contains 35 to 50 percent gravel and up to 10 percent cobbles. Permeability is moderate to rapid, and the water capacity is low. Surface runoff is slow, and the erosion hazard is slight.
- ***Niklason series***: This series is characterized by coarse silt loam occurring on flood plains and broad low-lying stream terraces. The soil is dark grayish brown silt loam and fine sand over gravelly sand. The water capacity is moderate to low, and permeability is moderate to rapid. Surface runoff is slow, and the erosion hazard is slight. This soil is susceptible to flooding but is a good source of sand and gravel.

2.3.3 Climate

Fort Richardson is in a transition zone between the northern continental climate of the Alaskan interior and the maritime climate of the Gulf of Alaska. The Alaska Range to the north and northwest of the post acts as a barrier to very cold air from the interior. The Kenai and Chugach Mountains to the south and east restrict the influx of maritime air from the Gulf of Alaska. The waters of the Cook Inlet and the Knik Arm serve to moderate temperatures and provide moisture (Elmendorf AFB, 1994).

2.3.4 Biota

Fort Richardson has many different vegetation communities, from coastal salt marsh and boreal forest types to high alpine tundra, talus slopes, and blockfields. The post has been classified into five ecological

zones on the basis of vegetation and plant habitats (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a).

- ***Coastal Halophytic Zone*** influenced by salt water, principally including shoreline tidal flats and the 2,137-acre Eagle River Flats estuarine marsh on Cook Inlet.
- ***Lowland Interior Forest Zone*** of boreal forest habitats below approximately 1,500 ft. Mesic to dry forest types include: white spruce, white spruce-paper birch, paper birch, white spruce-cottonwood, black cottonwood- balsam poplar, and quaking aspen. Wetlands are predominantly black spruce tree bogs and treeless bogs with a variety of low shrub and graminoid forb communities. Alder shrub is a dominant type of the Lowland Interior Forest Zone.
- ***Subalpine Zone*** of intermittent forest, shrub, and meadow habitats from approximately 1,500 to 2,500 feet elevation. Mesic to dry sites include white spruce, white spruce-paper birch, balsam poplar; and mountain hemlock. Forests are interspersed with alder shrub and grass forb meadows. Treeless bogs are occasionally present in the Subalpine Zone.
- ***Alpine Zone*** of mountain landscape habitats above treeline. Low shrubs and dwarf shrubs occupy wet and mesic to dry habitats. The latter include mesic to dry vegetated sites and dry non-vegetated sites such as rock talus and blockfields. Wetter habitats include late-melting snowfields and snowbeds.
- ***Artificially Cleared or Disturbed Zone*** of the Cantonment Area, utility corridors, roadsides, railroad right-of-ways, borrow pits, wood cutting areas, moose habitat areas, small arms ranges, firing points, landing zones, and other human-modified areas.

Due to the diverse ecosystems, most species of fauna indigenous to the southcentral Alaska occur on Fort Richardson. Two important characteristics of animal life on the post are a highly productive moose population, resulting from adequate habitat and specialized management practices, and a concentration of waterfowl during migration seasons, probably due to a tidewater saltmarsh (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a).

3.0 GOALS AND RESPONSIBILITIES

3.1 Goals and Objectives

Goal. The goal of cultural resources management on Fort Richardson is to protect historically significant resources.

Objectives.

- Comply with federal laws and regulations governing the treatment of cultural resources while causing the least disturbance to the military mission.
- Implement a *cultural landscape* planning approach to cultural resources management that recognizes the complexity of the human cultural interaction with the natural terrain through time.
- Inventory and evaluate cultural resources for eligibility to the National Register.
- Have procedures for nominating eligible resources to the National Register.
- Minimize adverse effects on cultural resources that meet criteria for inclusion in the National Register.
- Develop efficient management procedures that streamline consultation and focus on significant cultural resources as opposed to those of little or no National Register potential.
- Enforce federal laws that prohibit vandalism of cultural resources on federal properties through law enforcement, monitoring, and public awareness.
- Consider outside interests, including those of Native Alaskan entities, local governments, and public groups.

The overall purpose behind these management objectives is the integration of legal requirements for preservation into the everyday operation of USARAK's military mission and supporting activities. This ICRMP incorporates guidelines, schedules, and standard operating procedures for cultural resources management into a single document to more efficiently fulfill management responsibilities.

3.2 Program Responsibilities

USARAK is responsible for managing cultural resources on Fort Richardson in accordance with relevant federal laws and regulations. The foundation of broad legislation for preservation of cultural resources is the National Historic Preservation Act (NHPA) of 1966. The NHPA calls upon the federal government to be a leader in preservation, stating that government agencies should "*provide leadership in the preservation of the prehistoric and historic resources of the United States and... administer federally owned [cultural] resources in a spirit of stewardship for the inspiration and benefit of present and future generations"* (NHPA, Section 2(2) - 2(3)). The NHPA outlines roles of the National Register of Historic Places, the SHPO, and the Advisory Council on Historic Preservation (Advisory Council) in overseeing management of cultural resources.

Of particular importance to military installations are Sections 106 and 110 of the NHPA. Section 106 requires federal agencies to consider effects of undertakings on resources listed in, or eligible for inclusion in, the National Register through a process of consultation. Section 110, part of a 1980 revision, requires federal agencies to institute programs to identify, evaluate, and nominate National Register-eligible cultural resources under their care. Compliance with preservation requirements on military lands is largely

compliance with these sections of the NHPA. Numerous federal regulations, orders, and instructions elaborate upon and clarify these provisions of the NHPA and the compliance process.

In 1999 the Advisory Council approved a new implementing regulation for Section 106 of the NHPA; the new 36 CFR 800 supersedes the previous version. The regulation calls for greater federal agency responsibility and autonomy, strengthens the role of Native American tribal organizations, and streamlines the role of the Advisory Council in the Section 106 process.

The body of laws and regulations specifically dealt with in this ICRMP is listed below:

Cultural Resources Laws, Regulations, Orders and Guidelines*

Public Law 89-665	National Historic Preservation Act of 1966
Public Law 91-90	National Environmental Policy Act (NEPA) of 1969
Public Law 93-291	Archeological and Historical Preservation Act of 1974
Public Law 96-95	Archeological Resources Protection Act of 1979
Public Law 101-601	Native American Graves Protection and Repatriation Act
Public Law 95-341	American Indian Religious Freedom Act of 1978, as amended 1996.
Public Law 103-141	Religious Freedom Restoration Act of 1993
Executive Order 11593	Protection and Enhancement of Cultural Environment, May 13, 1971
Executive Order 13007	Indian Sacred Sites, May 24, 1996
Executive Order 13084	Consultation and Coordination with Indian Tribal Governments, May 14,1998
48 CFR 44716	Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines
32 CFR 229	Protection of Archeological Resources
36 CFR 60	National Register of Historic Places
36 CFR 67	The Secretary of the Interior's Standards for Rehabilitation
36 CFR 68	The Secretary of the Interior's Standards for Treatment of Historic Properties
36 CFR 79	Curation of Federally-owned Archeological Resources
36 CFR 800	Protection of Historic and Cultural Properties
36 CFR 1228	Disposition of Federal Records

* Does not include all legislation, only that most applicable to Fort Richardson.

Army Regulation, 200-4, *Cultural Resources Management*, outlines responsibilities with regard to cultural resources legislation for installations, Major Commands, and supporting organizations. Specific responsibilities of the cultural resources management program on Fort Richardson are to:

- develop, approve, and maintain an integrated cultural resources management plan;
- inventory and evaluate cultural resources located on Fort Richardson;
- have a policy regarding nomination of eligible cultural resources to the National Register;
- protect and maintain eligible resources and promote their rehabilitation and adaptive reuse;
- integrate preservation requirements with planning and management activities of the military mission; and
- cooperate with federal, state, and local agencies, Native Alaskan corporations, and the public in cultural resources management.

A general failure of USARAK to implement a cultural resources program on Fort Richardson and comply with the NHPA and other legislation could have a number of penalties. The Alaska SHPO could require the installation to follow strict coordination procedures via Section 106 which would result in lengthy delays for mission-related activities. The Advisory Council could submit a notice of foreclosure that would result in notification of the installation's violation to the President, Congress, and the public. Fort Richardson could be subject to audits from USARPAC and vulnerable to lawsuits filed on behalf of the public. Certain USARAK activities could be suspended until compliance requirements were met.

3.3 Organizational Listing and Roles

3.3.1 United States Army Alaska

USARAK is responsible for cultural resources management on Fort Richardson. It provides funding for the implementation of the ICRMP and oversees the development of the cultural resources management program on Fort Richardson.

3.3.1.1 Post Commander

Per Army Regulation 200-4 (Section 1-9) Fort Richardson's Post Commander is responsible for compliance with cultural resources legislation on the installation. More specifically, the Commander is responsible for establishing and overseeing a cultural resources management program, designating a Cultural Resources Manager, and implementing this ICRMP.

3.3.1.2 Public Works / Cultural Resources Manager

Public Works is tasked with the management of cultural resources as well as that of all facilities, land, forest, and fish and wildlife on Fort Richardson. Public Works is the primary implementing organization of this ICRMP and manages installation lands to preserve historically significant cultural resources.

Cultural resources management is coordinated through the Environmental Division. The Cultural Resources Specialist, Natural Resources Branch serves as the Commander-appointed Cultural Resources Manager (CRM) for Fort Richardson. The CRM is responsible for ensuring that USARAK fulfills its legal obligations and reviews proposed projects in consideration of cultural resources concerns. The CRM is also responsible for coordinating with the public and the two primary partners for cultural resources management, The Alaska SHPO and the Advisory Council. As the representative of the Post Commander, the CRM is the Fort Richardson POC for cultural resource concerns and the initiating party in the consultation process.

3.3.1.3 Directorate of Plans, Training, Security, and Mobilization

The Directorate of Plans, Training, Security, and Mobilization (DPTSM), particularly its Range Division, is the interface between cultural resources management and troops training in the field. DPTSM has responsibility for managing range complexes and coordinating military training. DPTSM will provide control of military activities required to protect cultural resources and will enforce range regulations regarding use of training areas.

3.3.1.4 Staff Judge Advocate General

The office of the Staff Judge Advocate General performs all legal functions on Fort Richardson. The Environmental Law Attorney will serve as legal advisor to the Commander and the CRM, review draft cultural resources documents per AR 200-4, and serve as counsel for the Army in appropriate administrative cases, hearings, and enforcement actions.

3.3.1.5 Public Affairs Office

The Public Affairs Office (PAO) is the interface between Fort Richardson and the public. PAO plays a major role in educating the public on the history and prehistory of Fort Richardson and in informing residents and visitors alike of laws and regulations protecting cultural resources.

3.3.1.6 Provost Marshal

The Provost Marshal (PMO) provides cultural resources law enforcement on Fort Richardson and is responsible for enforcing the Archeological Resources Protection Act (ARPA) and other cultural resources laws and regulations.

3.3.1.7 Other USARAK Organizations

Implementation of this ICRMP requires assistance of other directorates and organization on the post. Such organizations include the Directorate of Resource Management (budget, personnel, and equipment authorizations), the Directorate of Logistics (supply and transportation), and the Directorate of Resource Management (budget, personnel, and equipment authorizations).

3.3.2 Tenants

3.3.2.1 Alaska Army National Guard

The Alaska Army National Guard is a tenant on Fort Richardson, operating Camp Denali, headquarters of Alaska National Guard, and Camp Carroll. Use of Fort Richardson for the two camps is granted through temporary land-use permits. Army National Guard units use lands on Fort Richardson for training exercises. Coordination and scheduling of training land use is through the Fort Richardson Range Control office. The Army National Guard is responsible for compliance with cultural resources laws and regulations on Camp Carroll and Camp Denali.

3.3.2.2 U.S. Army Reserve

The U.S. Army Reserve is also a tenant with a new administration and motor pool located near the Fort Richardson cantonment area. The Reserve operates a heavy equipment engineering unit.

3.3.3 United States Army, Pacific

USARPAC, located at Fort Shafter, Hawaii, is the major command headquarters for Fort Richardson. Per AR 200-4, USARPAC's responsibilities with regard to cultural resources management on Fort Richardson include:

- ensuring that a cultural resources management program is in place;
- reviewing this ICRMP, National Register nominations, and other management documents; and
- assisting Fort Richardson in establishing funding priorities.

3.3.4 U.S. Army Corps of Engineers, Alaska District

The U.S. Army Corps of Engineers, Alaska District, assists USARAK by administering contracts for outside or other agency support. It also maintains a cultural resources professional in Anchorage who may assist with general management issues.

3.3.5 Bureau of Land Management

BLM has oversight responsibility for Cultural Resources Management on public domain lands in Alaska withdrawn for military training purposes. The Anchorage District Office maintains a full time Archeologist with the responsibility for managing archeological and historic resources on the public domain lands in the Anchorage District.

3.3.6 Alaska State Historic Preservation Office

The Alaska SHPO the cultural resources preservation arm of the State of Alaska. The Alaska SHPO maintains a database of all known archeological sites and historic properties in Alaska and is a consulting partner for cultural resources management on Fort Richardson.

3.3.7 Advisory Council on Historic Preservation

The Advisory Council on Historic Preservation, created by the NHPA of 1966, is a federal organization appointed by the President that reviews federal programs and policies on historic preservation. The Advisory Council oversees the Section 106 process and is a consulting partner for cultural resources management on Fort Richardson.

3.3.8 Native Alaskan Entities

Native Alaskan entities and corporations are important partners in cultural resources management, particularly with regard to compliance with specialized legislation such as the Native American Graves Protection and Repatriation Act of 1990 and the American Indian Religious Freedom Act of 1978. Recent revisions to the implementing regulation of the NHPA also expand the role of Native Alaskans in the Section 106 process. Native Alaskan entities in the Fort Richardson area are listed in Section 5.5.3.

4.0 CULTURAL RESOURCES INVENTORY

Cultural resources under the stewardship of Fort Richardson consist of the material manifestations of the knowledge, beliefs, art, morals, laws, and customs particular to a people or society. Cultural resources are divided according to two broad, temporal categories: prehistory and history. Another category, proto-history, signifies the period of transition between the two.

Prehistory is the portion of human history before the use of written records. History is that period following the introduction and use of written documents as a form of communication and preservation of knowledge. Proto-history refers to any period of time shared by two or more cultural groups in a specific region in which only one makes use of writing.

Management of cultural resources on federal lands hinges on eligibility of resources for inclusion in the National Register of Historic Places. For purposes of the National Register, resources are classed in terms of five major categories based on original function or character of the property:

- ***District***: A district is a geographically definable area, possessing a significant concentration or continuity of buildings, structures, or objects united historically by past events or aesthetically by design or physical development. It may contain individual elements separated geographically but linked by association or history. A district is typically used when structures of an area do not all contribute to the significance of the property.
- ***Site***: A site is a location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location possesses historic or prehistoric value. A site may also hold significance related to traditional cultural values when it can be associated with a real property.
- ***Building***: A building is a structure erected to shelter any form of human activity, such as a house, church, barn, or similar structure. A building may also connote a historically related complex of buildings, such as a farmstead or an industrial complex, if all structures contribute to the significance of the property.
- ***Structure***: A structure is an engineering project that aids man's activities. It includes all standing structures not made for shelter.
- ***Object***: An object is a thing of functional, aesthetic, cultural, historical or scientific value that may be, by nature or design, movable yet associated with a specific setting or environment.

Although properties in all five categories potentially occur on Fort Richardson, cultural resources have been determined eligible (or potentially eligible), and therefore subject to management, in only two categories:

- Districts (1)
- Sites (1)

4.1 Archeological Resources

4.1.1 Archeological Record

Ten thousand years ago, at the end of the Pleistocene epoch, Alaska was connected to Asia via what is now

the Bering Strait. The two landmasses were separated only as glaciers retreated and waters rose, forming the Bering Sea to the south and the Chukchi Sea to the north (Dumond, 1983: 69).

The prehistory of Alaska, like the landmass of Alaska itself, emerged out of the glacial events of the late Pleistocene. During the Pleistocene, the Cook Inlet region (including present-day Fort Richardson) was glaciated and formed part of the Cordilleran glacier system that extended from the Alaska Range down the St. Elias Range and the Coast Mountains to the northern Rockies. East of this glacier system, the huge continental ice sheet, centered around what is now Hudson Bay, extended across Canada into the United States and nearly joined the Cordilleran glacier system to the west (Dumond, 1983: 71).

The Interior of Alaska experienced much less glaciation and constituted a relatively ice-free bowl surrounded by the large glacier systems. Therefore, the earliest evidence of human occupation in Alaska can be found in the Interior. Although it is believed the first human could have crossed from Asia into Alaska as early as 30,000 year ago (Jennings, 1983: 25), the earliest known sites in the Interior date from 11,000 to 12,000 years before present (BP) (McMahan and Holmes, 1996: 13).

Human occupation of the Cook Inlet region became possible only after glacial retreat. Geologic evidence suggests that areas suitable for human occupation could have opened as early as 15,000 BP (McMahan and Holmes, 1996: 13). However, the earliest known site in the Cook Inlet region, the Beluga Point site, is at most 8,000 years old. Generally, the prehistory of the Cook Inlet region is less understood than that of the Interior and is articulated around cultural materials found at a few key sites.

Regional Prehistory of the Northern Cook Inlet Region

Chronology	Time Period	Cultural Affiliation	Archeological Sites / Events
10,000 BP			
	Early Holocene	Denali Complex (Interior Alaska)	Beluga Point (Component 1) Long Lake
6,000 BP			
	Middle Holocene	Ocean Bay Tradition	Beluga Pont (Component 2)
3,000 BP			
	Late Holocene	Norton Tradition and Kachemak Tradition	Beluga Point (Component 3) Fish Creek
1,000 BP (A.D. 1000)	Late Prehistoric	Denaina Athapaskan	
A.D. 1778			Captain Cook explores Cook Inlet

4.1.1.1 Early Holocene Era: 8,000 to 6,000 BP

By far the most significant site in the region is the Beluga Point site on the northern shore of the Turnagain Arm near Anchorage. The site contains a number of components, the oldest of which consists of core and blade artifacts (McMahan and Holmes, 1996: 14). Although the artifacts have not been radiocarbon dated, the component is thought to be at least 8,000 years old.

Artifacts from Beluga Point are similar to those found at Long Lake in the upper Matanuska River Valley and at sites in the interior of the Kenai Peninsula (McMahan and Holmes, 1996: 14). Artifacts from these sites have been associated with the *Denali Complex* of interior Alaska (Bacon, *et al.*, 1986: 65). Peoples occupying the region during this time likely entered from the Interior[1] and practiced terrestrial hunting and gathering.

4.1.1.2 Middle Holocene Era: 6,000 - 3,000 BP

The period from 6,000 to 3,000 years ago is poorly represented in the archeological record of southcentral Alaska (McMahan and Holmes, 1996: 14). The most important findings come from a second component of the Beluga Point site. This component dates prior to 3,000 BP and suggests affiliation with the Ocean Bay Tradition.

The *Ocean Bay Tradition (6,000 -5,000 BP)* was a cultural tradition associated with the Alaska Peninsula and Kodiak Island. Peoples of the Ocean Bay Tradition were specialized for coastal life and practiced marine subsistence with emphasis on fish and marine mammals. The tradition is thought to *constitute a horizon of the Pacific Eskimo region* (Dumond, 1983: 98).

4.1.1.3 Late Holocene Era: 3,000 - 1,000 BP

Numerous sites in the Cook Inlet region dating from 3,000 to 1,000 BP indicate Pacific Eskimo cultural affiliation. A third component from the Beluga Point site, thought to date between 2,200 and 2,500 BP, suggests affiliation with the Norton Tradition (Bacon, *et al*., 1986: 65). The *Norton Tradition (3,000 - 1,000 BP)*, a Pacific Eskimo tradition of the Bering Sea coast, was marked by the first appearance of pottery in Alaska (from Asia) and an emphasis on coastal subsistence (Dumond, 1983: 81). Findings in the Cook Inlet may represent the southern terminus of Norton influence.

Other sites in the region suggest the influence of the Kachemak Tradition. The *Kachemak Tradition (3,5000 - 1,000 BP)* was concentrated around the Pacific Rim from the Alaska Peninsula and the Aleutians to present-day Washington state. The tradition was marked by the appearance of the transverse knife, or *ulu*, and a focus on hunting sea-mammals and fishing (Dumond, 1983: 100-1). Kachemak components have been found at the Fish Creek Site (just south of Knik), the Cottonwood Creek site, and the Moose River site (McMahan and Holmes, 1996: 14-5).

4.1.1.4 Late Prehistoric Era: 1,000 BP - 250 BP

Archeological evidence suggests that peoples with an Athabascan material culture had entered the Cook Inlet region by 700 BP (A.D. 1300). Late prehistoric Athabascan sites are numerous and are characterized by rectangular house depressions, a preponderance of cobble spall scrapers along with a paucity of other artifacts, and concentrations of fire-cracked rock from cooking fires and sweat baths (McMahan and Holmes, 1996: 14-5). These Athabascan sites are presumed to be associated with the Tanaina, or *Denaina*, Athabascans who were in the region when Captain Cook arrived.

[1]Some archeologists have speculated that early inhabitants of the Cook Inlet region came by sea from the south or by land and then sea from the southwest (McMahan and Holmes, 1996: 14).

4.1.1.5 Russian and Euroamerican Era (Proto-historic): A.D. 1778 - 1867

In 1778 Captain Cook, searching for the Northwest Passage, encountered the Denaina people on his exploration of the inlet that now bears his name. This event marked the first recorded contact of the native peoples of the region with Europeans. However, earlier contact was likely made by Russian fur traders who began operating in the Alaskan territory following the turn of the 18th Century. In 1799 all Russian fur trading companies operating in the territory were consolidated into the Russian-American company. For the next 68 years the company governed the Alaskan territory from Sitka (in southeastern Alaska) under the colonial authority of the Tsar of Russia.

Russian influence on the Cook Inlet area was limited, and the Denaina lifestyle likely changed little. The major impact of Russian colonial government was the introduction of Russian Orthodox Christianity. Russian missionaries followed fur traders into the territory and by 1794 established the first Russian Orthodox church at Kodiak. A cathedral was established at Sitka during the 1840s. The influence of the Russian Orthodox faith was felt primarily in the Aleutians, Kodiak Island, and the Pacific Rim (Herb, 1993: 140).

The most comprehensive account of the Denaina culture at the time of contact has come not from history, but from ethnography. In the 1930s the anthropologist Cornelius Osgood conducted fieldwork among the Denaina, whose culture had long since been enveloped by Euro-American culture. Drawing on oral history and life histories, Osgood was able to develop a fairly cohesive portrayal of Denaina culture of the 18th and 19th centuries (Osgood, 1937). The work of Osgood was followed by that of other ethnographers, such as Tenenbaum, Kalifornsky, Townsend, and Davis.

Denaina subsistence was based primarily on caribou (hunted during the fall) and the five species of salmon. In addition, sea mammals, such as the Pacific harbor seal, and land mammals, such as the moose, bear, mountain goat, Dall sheep, and squirrel, were regularly exploited (Townsend, 1981: 626). The Denaina apparently borrowed many cultural traits, such as the kayak, from neighboring Eskimo groups (Bacon, *et al*., 1986: 69).

There were several Denaina villages in the Fort Richardson area. Eklutna is the only one still in existence. The most significant native village of the area was Knik, located near the mouth of the Knik and Matanuska rivers. A number of fish camps were used at Ship Creek, Fire Island, Point Woronzoff, and the mouth of Eagle River (Bacon, *et al*., 1986: 69).

4.1.1.6 American Era (Historic): A.D. 1867 - 1938

On October 18, 1867 control of the Alaskan territory was officially transferred from Russia to the United States, which had purchased the land for $7.2 million. This event ushered in a period of more intensive Euroamerican impact on the region.

During the years immediately following the purchase, United States control resembled Russian, with the Alaska Commercial Company replacing the Russian-American Company. However, the pace of exploration and commercial development accelerated in 1884 with the organization of Alaska into a civil and judicial district (Bacon, *et al*., 1986: E-8). Gold rushes of the late 1800s permanently changed the territory's demography. The first gold rush occurred in 1880 at what is now Juneau. However, it was rushes in the Interior that had the greatest impact on the Cook Inlet region. During the Circle City (1893)

and Klondike (1896) gold rushes, the Cook Inlet area, and particularly the Denaina town of Knik, served as a supply center for the Interior. Many newcomers stayed in Alaska and enhanced both the commercial and political visibility of the territory (Bacon, *et al.*, 1986: E-8).

The growth of Anchorage was closely associated with development of the Alaska Railroad. Begun as a construction camp and headquarters of the Alaska Railroad in 1913, Anchorage acquired its name from the nearby Knik Anchorage in the Knik Arm. Other early names included "Ship Creek" and "Woodrow.' Construction of the railroad began in 1915 (Herb, 1993: 14-15).

In 1912 a territorial government was established in Alaska with development continuing in fishing, mining, and the timber industry. The Alaska Railroad, linking Seward, Anchorage, and Fairbanks, was completed in 1923. During the Depression public works projects sponsored by the Federal government resulted in the construction of large and small facilities throughout Alaska, including schools, bridges, trails, harbors, and water systems (Bacon, *et al*., 1986: E-9).

In the 1930s, as part of the Department of Agriculture's relief effort for poor farmers devastated by the Great Depression, 202 families were relocated to agricultural land in the Matanuska Valley (Bacon, *et al*., 1986: E-9). This area became the Mat-Su Farm Colony. In 1935 a highway was constructed connecting the new agricultural colony with Anchorage.

4.1.2 Literature Review

At least six archeological surveys have been conducted on Fort Richardson since the late 1970s. Survey areas are indicated on Map A. The first four were small, reconnaissance-level surveys that identified no archeological sites. Veltre (1978), the first known archeological investigation undertaken on Fort Richardson, surveyed a right-of-way for a transmission line between the Glenn Highway and Knik Arm. Bacon (1979), surveyed the Malamute Drop Zone. Holmes (1979) surveyed Cirque Lake in the Chugach Mountains, and Steele (1979) surveyed the area around Otter Lake.

The most recent archeological investigation conducted on Fort Richardson was also limited in scope. In 1996 Georgie Reynolds of U.S. Army Corps of Engineers surveyed a proposed expansion area for Fort Richardson's Moose Run Golf Course. The survey identified one multi-component (prehistoric/historic) site (ANC-822) that was determined to be ineligible for the National Register (Reynolds, 1996).

Fort Richardson Archeological Investigations

Investigator	Area	Number of Sites Identified	Year
Veltre	Glenn Highway to Knik Arm	0	1978
Bacon	Malamute Drop Zone	0	1979
Holmes	Cirque Lake	0	1979
Steele	Otter Lake	0	1979
Steele	Representative sample areas throughout the installation	4	1980

Reynolds	Moose Run Golf Course	1	1996

Fort Richardson's only major archeological survey was completed by J. Steele in 1980. The project was designed to provide a predictive model of archeological site potential across the installation. The survey used a sampling strategy based on ecological zones, physiographic zones, and prior knowledge of known site distribution in the area. Target areas included:

- the shore of the Knik Arm,
- river and stream margins,
- lake and pond margins,
- elevated areas,
- raw material quarries, and
- the Alaska Railroad right-of-way.

A sample of each target area was surveyed along 20-meter transects that countered the grain of ecological zones. Placement of subsurface tests was judgmental (Bacon, *et al*., 1986: 69-74).

The survey identified four archeological sites (ANC-263, 264, 265, and 668), all dating to the 20th Century. The predictive model resulting from the study is discussed in Section 4.1.4.1.

4.1.3 Archeological Inventory

Archeological resources consist of sites and associated material culture, *i.e.* artifacts. Five known archeological sites exist on Fort Richardson's 61,000 acres (Map B). Generally, Fort Richardson has a relatively low potential to contain prehistoric sites; only one of the five identified sites has a prehistoric component. All archeological sites have been determined ineligible for the National Register. No artifacts are curated by or under the stewardship of the installation. Except as noted, site descriptions provided below are taken from records of the Alaska SHPO.

Fort Richardson Archeological Sites

Site	Site Name	Period	NR Status	Study
ANC-263	Cabin #1	historic (20th Century)	ineligible	Steele, J.K, 1980
ANC-264	Cabin #2	historic (20th Century)	ineligible	Steele, J.K, 1980
ANC-265	Structure #3	historic (20th Century)	ineligible	Steele, J.K, 1980
ANC-668	Historic Remains	historic (20th Century)	ineligible	Steele, J.K, 1980
ANC-822	(no site name)	historic / prehistoric	ineligible	Reynolds, 1997

4.1.3.1 Site ANC-263, Cabin #1

Site ANC-263, or the Cabin #1 site, occurs in a small manmade clearing approximately 100 meters east of Tokle Creek on a hillside above Ship Creek (Steele, 1980: 37). The historic site is a deteriorating cabin that likely dates to the 1930s or 1940s.

The cabin, measuring 4.5 by 3.8 meters, is constructed of horizontally placed, square-notched logs. The cabin floor has been leveled, but not excavated to any depth. Moss and wooden slats nailed between the logs were used to chink the cabin. The roof, consisting of tin, canvas, and tarpaper, has fallen in, and the north side of the cabin has totally collapsed. There are five-foot high spruce trees growing inside (Steele, 1980: 37).

The doorway is oriented almost directly west towards Tokle Creek. There is a window in the east wall. The door, doorframe, and window frames are constructed of machine-sawn lumber. Modern wire nails were used in the construction along with a steel door latch.

At least three rectangular pits, two filled with trash and one empty, are near the cabin. Large quantities of flattened and rusted tin cans occur around the cabin. An olive oil can labeled “San Antonio,” a number of pre-poptop beer cans, a rusted oil drum, the frying pan section of a World War II-era mess kit, and a Folgers coffee can with a 1946 date have been noted (Steele, 1980: 37).

Although it is possible that the cabin predates the 1930s and may be associated with the Iditarod Trail, no claims were filed for this property prior to Army acquisition. The site has little potential to add to our knowledge of the 20th Century and is *ineligible* (Alaska State Historic Preservation Office, 1984) for the National Register.

4.1.3.2 Site ANC-264, Cabin #2

Site ANC-264, or the Cabin #2 site, is just to the east of a faint trail in a clearing southwest of Eagle River Flats. This 20th Century historic site consists of a cabin, trash pile, and associated debris. The small cabin, measuring 3.8 meters by 3.5 meters, is partially buried, and the floor is subterranean (Steele, 1980: 38).

Walls are constructed of unpeeled logs with square or saddle notches. The floor is dirt. The gable roof, now collapsed, is constructed of split logs, plywood, and tin sheeting covered with sod. The cabin is slumping to the southeast but is still intact.

In the area around the cabin, a mossed stack of 2 x 6" boards, sheet metal, part of a military mess kit, plywood, and some faint rectangular pits were noticed. Numerous debris were recorded inside the cabin. About 15 meters west of the cabin was a pile of coal covered by deteriorating canvas and aviation fuel cans.

BLM records indicate that the land was claimed by a succession of individuals beginning in the 1920s. Although the site could predate military acquisition, a post-1940 date is more likely given the nature of construction and materials. The site is *ineligible* (Alaska State Historic Preservation Office, 1984) for the National Register.

4.1.3.3 Site ANC-265, Structure #3

Site ANC-265, the Structure #3 site, consists of the remains of a tent platform or similar structure. The site contains a number of plywood sheets put together to form a 3.7 meter by 4.5 meter rectangle. Beneath the plywood is a pit or cellar 1 meter in depth. The plywood is bordered by square, rough-hewn logs, and rotted canvas is scattered around the area. At the north end of the platform is a pile of wood that may have

been part of the superstructure. A rotted door and window frame lie on the ground to the south (Steele, 1980: 41).

The platform occurs along a fairly well defined trail. On the east side of the trail across from the platform is a shaft dug into gravel. The cone-shaped shaft reaches a depth of 2 meters. Next to the shaft is a trash pile (Steele, 1980: 41).

Several hundred meters north along the trail is a pile of objects, including a zinc washtub, tin cans, an aluminum pot, wood, and a Hill's Brothers coffee can. Near the pile is scattered tar paper, a wooden plank table, an aluminum teakettle, and a stovepipe.

The site may have originally been a homestead or squatter's cabin. BLM records indicate that Thaddeus McGrath filed for a homestead in this section in 1934 and then relinquished the claim in 1939. William Chambers claimed the land in 1939 and held it until it was withdrawn for the military in 1942. The words "hot springs" were appended to both claims. However, the archeological investigation discovered no springs in the vicinity (Steele, 1980: 41). The site is *ineligible* (Alaska State Historic Preservation Office, 1984) for the National Register.

4.1.3.4 Site ANC-668, Historic Remains

Site ANC-668[2] is located on the banks of Eagle River near a railroad bridge (Site ANC-099). The site consists of the remains of two cabins located on either side of the bridge on Fort Richardson property.

The small cabin southeast of the bridge measures 3 meters by 1.5 meters. It is constructed from sapling-size birch and alder. The structure is not chinked, although corners of the logs are notched. Based on the condition of the wood, the cabin does not appear very old (Steele, 1980: 43).

The cabin to the northwest of the bridge is larger and well constructed. Its dimensions are 6.3 meters by 5.2 meters. The cabin is constructed of logs and is chinked with moss and lathing. Upper portions of the cabin and roof have collapsed. About 25 meters south of the cabin is a latrine pit. A log foundation with no superstructure is located southeast of the cabin (Steele, 1980: 43).

At various times over the past century a roadhouse, workers camp, and railroad section house have been located near the bridge. Old photographs from the early days of the Alaska railroad show a number of structures near the bridge. The land surrounded the bridge was filed as a headquarters site in 1920 but was never patented. Although it is possible that some remains of structures are located in the area, no substantial foundations are apparent (Steele, 1980: 44).

Due to its lack of integrity, the site is *ineligible* (Alaska State Historic Preservation Office, 1984) for the National Register.

[2]The site was originally named the Eagle River Railroad Bridge site. However, the name was dropped since the bridge itself was a site (ANC-099). The descriptive name of "historic remains" appears in SHPO records.

4.1.3.5 Site ANC-822

Site ANC-822 is a multi-component site consisting of five historic and prehistoric features. The site is on the south side of Ship Creek about 150 meters south of Moose Run driving range.

The major feature is an historic cabin, or tent frame, with a well-constructed root cellar lined with logs. A cache pit measuring 173 by 137 centimeters and 30 centimeters deep, is 30 meters to the west. No cultural materials were found, and the pit may be natural. Another small rectangular depression measuring 137 by 203 centimeters and 10 centimeters deep, occurs at the edge of a terrace overlooking the creek.

The site lacks integrity. It is *ineligible* (Alaska State Historic Preservation Office, 1997a) for the National Register.

4.1.3.6 Alaska Railroad Sites

Two archeological sites associated with the historic Alaska Railroad occur within the boundaries of Fort Richardson but are State of Alaska property; these sites are not subject to management by USARAK. The sites occur along the Alaska Railroad right-of-way and are *Site ANC-076*, the historic "Kuney" flagstop of the Alaska Railroad, and *Site ANC-099*, a 308-foot railroad bridge constructed in 1928. As these sites are not the responsibility of USARAK, they are not identified on the installation site map to avoid confusion.

4.1.4 Areas of Concern

Areas of concern for archeological resources on Fort Richardson consist of locations where archeological sensitivity is high, the presence of archeological sites is suspected, or training or other USARAK undertakings have significant potential to negatively impact undiscovered archeological resources.

4.1.4.1 Sensitive Archeological Areas

The predictive model for archeological sites on Fort Richardson (Steele, 1980) identified five areas with relatively high potential to contain archeological resources:

- the mouth of Eagle River,
- the shoreline of Knik Arm,
- upstream portions of Ship Creek,
- the Fossil Creek drainage, and
- the Elmendorf Moraine (Steele, 1980: 46-47).

The mouth of Eagle River at Eagle River Flats is an active impact area and, therefore, off-limits for cultural resources inventory. Most of the Knik Arm shoreline, with the exception of portions near Eagle River Flats, was surveyed by Steele in 1980. Therefore, the latter three areas will be the primary locations of concern with regard to undiscovered archeological sites during 2002-2006.

4.1.4.2 Training Areas

Military training by USARAK forces and tenant units on Fort Richardson may involve ground disturbance that can negatively impact archeological sites. Training is scheduled by Range Control, which assigns

military units to Fort Richardson training areas (Section 2.1.1). Some training areas receive relatively heavy training pressure (and therefore have greater potential for ground disturbance), while other areas are less intensively used. Environmental factors play a role in scheduling, as wetlands and alpine areas are protected. Training areas north of the Glenn Highway typically receive more training pressure than areas south of the highway. The following table classifies training areas according to relative training impacts.

Impacts by Training Area

Training Area	Training Intensity*
1 (A,B,C)	High
2 (A,B)	Moderate
3	Moderate
4	Moderate
5	Moderate
6 (A,B)	Moderate
7 (A,B)	Low
8 (A,B)	Low
9 (A,B)	9A - Low 9B - Moderate
10 (A,B)	Low
11 (A,B, C, D, E)	Low
12 (A,B)	Low
13	Low
14 (A,B,C)	Low
15	Low

* Source: Fleshman, communication

Areas identified as having high archeological sensitivity (Section 4.1.4.1) generally occur within training areas with low potential for training-related ground disturbance, *i.e.* upstream portions of Ship Creek (Training areas 11E and 13), Fossil Creek (Training areas 7 (A,B) and 8 (A,B)), and Elmendorf Moraine (Training Area 8A). The exception is the shoreline of Knik Arm which occurs within Training Area 1 (A, B), the most intensively used training area on post.

4.1.4.3 Denaina Ethnohistoric Land Use Patterns

Ethnohistory is an indispensable resource for information on historic land use and archeological site distribution. In 1994 the *Denaina Team*, a consulting group of Denaina natives and the anthropologist Nancy Davis, embarked on an ambitious project to document historic Denaina land use along the Knik

Arm northeast of Anchorage (Davis, 1994). The study, sponsored by the Air Force and the National Park Service, focused primarily on the Knik Arm shoreline of Elmendorf AFB.

However, the study also addressed potential archeological sites on Fort Richardson. Seven areas were identified as possibly containing archeological resources. These areas, with the exception of Otter Lake, require further investigation.

- ***School Fish Camp Site,*** *Nutleghghulket-Sedge Extends Down*: The most significant area on Fort Richardson identified by the study was the former fish campsite used until the mid-1940s. From 1924 to 1946 the Bureau of Indian Affairs operated the Eklutna Vocational School for native children just northwest of Fort Richardson. The fish campsite provided fish and training for native students. The fish campsite is below the bluffs on the Knik Arm shoreline in Training Area 1C. A long, curved beach with two large cottonwood trees characterizes the area. One of the trees has an eagle's nest. A small pond is also nearby. The Denaina Team visited the area and identified remnants of a smokehouse (14' X 20') and a tent frame (12' X 14') (Davis, 1994: 53-5).
- ***Point Whitney***, *Kqiydulghakt-Where We Harvest Fish*: Point Whitney has been identified as an area used into the 20th Century for storage and fermentation of salmon. The site, therefore, should contain deep storage pits (Davis, 1994: 55). No further information is available on the location of the storage pits at Point Whitney.
- ***Bluff Two Miles North of Eagle River***, *Keltaydeght-Where It is High Up*: This potential site is a bluff approximately two miles north of Eagle River (Davis, 1994: 56) in Training Area 1A. No indication is given of how this area was utilized.
- ***Eagle River***, *Nukelehitnu-Fish Run Again Creek*: This area refers to the upper Eagle River west of Eagle River Flats. A number of historic records indicate Denaina use along the river (Davis, 1994: 56-7). No further information is available.
- ***Small Creek into Eagle River***, *Tusqa-Cutting Place*: Historic accounts refer to fish camps along a small creek running into Eagle River used to in harvesting silver salmon. This creek may be Clunie Creek (Davis, 1994: 57).
- ***Clunie Lake***, *Ben Kaa-Big Lake*: Clunie Lake has been identified as an area historically used by the Denaina, but no further information is available (Davis, 1994: 57).
- ***Otter Lake***, *Kka Bena-Tail Lake*: Otter Lake has also been identified as a location frequented by Denaina natives (Davis, 1994: 57). However, an archeological survey was completed for Otter Lake in 1979 (Steele, 1979) that identified no archeological sites. Further investigation of the area is not recommended.

The Denaina Team met with Fort Richardson and Elmendorf AFB personnel in 1998 to conduct further on-site inspections. On a visit to Fort Richardson, the team identified another archeologically sensitive area along Ship Creek.

- ***Ship Creek Homesites***: In the 1930s, prior to Army acquisition of the land that now comprises Fort Richardson, a number of Denaina homesites were located along Ship Creek. Working from recollections of a Eklutna elder who had lived in the area as a child, the Denaina Team found evidence of at least two cabins south of the creek upstream from the new golf course and downstream of the old gauging station. The most significant findings were three cabin depressions. One depression was littered with debris from previous occupation(s). The Eklutna elder (Leo Stephan) thought this might be the cabin he lived in for a few winters as a boy. The area warrants protection and is high priority for further investigation.

4.1.4.4 Iditarod Historic Trail, ANC-270 and ANC-280

In 1973 the United States Congress designated the Iditarod Sled Dog Trail a National Historic Trail. The Iditarod Trail was blazed in the first decade of the 20th Century as a commerce route from Seward to Nome, Alaska. The trail was developed to meet the needs of the burgeoning Gold Rush communities (Bureau of Land Management, 1986: 11). Passable in winter, the trail traversed two mountain ranges and more than 1,000 miles. Parts of the trail are not passable during the summer, but many sections are popular summer hiking trails. In 1925 the trail received national attention when sled dog mushers relayed 300,000 units of diphtheria serum to epidemic-threatened Nome. In 1967 the first sled dog race was held over a 57-mile portion of the trail. In 1973 the length of the race was extended to 1,100 miles (Herb, 1993: 80).

In 1977 the first detailed evaluation of the trail was conducted by the Bureau of Outdoor Recreation, Department of the Interior (Bureau of Outdoor Recreation, 1977). In 1986 the Bureau of Land Management developed a comprehensive management plan for the trail (Bureau of Land Management, 1986). These studies addressed the trail in three segments: Seward to Susitna, Susitna to Kaltag, and Kaltag to Nome.

The studies identified two portions of the Seward to Susitna segment that cross Fort Richardson.

- ***Eagle River-Knik Trail, ANC-270***: This portion of the Iditarod Historic Trail is the primary route from Eagle River to Knik. The trail runs north from Birchwood to Cook Inlet, follows the Knik Arm northeast to Eklutna, crosses the Arm and follows the north side to the town of Knik. According to the Alaska SHPO records, a connecting trail from Anchorage to Birchwood (not part of the main Eagle River-Knik trail) crosses Fort Richardson. This connecting trail follows the Eagle River drainage to Clunie Lake and on to Birchwood.
- ***Girdwood-Ship Creek Connecting Trail, ANC-280***: The Girdwood-Ship Creek Connecting Trail is part of the Iditarod Historic Trail. It runs from Girdwood west along Turnagain Arm to Indian Creek, following the Indian Valley Trail north and then west to Ship Creek. According to Alaska SHPO records, the trail follows Ship Creek west across Fort Richardson. The route into and from Ship Creek is unclear.

Fort Richardson, therefore, may contain archeological sites associated with these two segments of the trail.

4.2 Historic Properties

4.2.1 Historic Overview

4.2.1.1 Pre-World War II

U.S. Army involvement in Alaska began on October 18, 1867, as elements of the 9th Infantry were on hand when the Russian Golden Eagle was lowered and the Stars and Stripes raised at Sitka. Thereafter, Sitka was headquarters for the U.S. Military District, Alaska, which maintained law and order in the new territory and protected inhabitants and their property. The Army also saw to the welfare of Alaska's indigenous peoples and helped them adapt to customs and laws of the new government (U.S. Army Alaska, 1995: 3).

In 1877 the Army relinquished control of Alaska to the Treasury Department but did not entirely leave the territory. The Signal Corps operated weather stations, and a number of officers conducted geographical explorations to learn more about the territory. The territory experienced population growth as a result of the Gold Rush in the Klondike region of Canada and later rushes in Alaska.

The Army played a crucial role in the development of Alaska's transportation and communication infrastructure. Brigadier General Greely, the namesake of Fort Greely, directed the construction of the Washington-Alaska Military Cable & Telegraph System, later to become the Alaska Communications System that linked the forts in the territory with Seattle. By 1903 the line extended from Seattle to Southeast Alaska, Valdez, the Interior, and Nome (U.S. Army Alaska, 1995: 3).

Meanwhile Brigadier General Wilds B. Richardson set upon building roads and garrisons throughout the territory. As head of the War Department's Alaska Road Commission during 1905-1917, he was responsible for much of the surveying and building of early railroads, roads, and bridges that allowed settlement and growth. The Valdez-Fairbanks Trail, surveyed under his direction in 1904, was named the Richardson Highway in his memory. Richardson commanded troops along the Yukon and supervised construction of Fort Egbert, near Eagle, and Fort William H. Seward (Chilkoot Barracks) near Haines (U.S. Army Alaska, 1995: 3-6).

Although the Army's involvement in Alaska declined during the 1920s and 1930s, work continued on road construction and other improvements. By the late 1930s another world war appeared imminent, and Alaska was caught up in flurry of military construction that saw the establishment of Fort Richardson and Army airfields at Fairbanks (Fort Wainwright) and Big Delta (Fort Greely).

4.2.1.2 World War II, 1939 - 1945

Fort Richardson was established by Executive Order 8102 on April 29, 1939. The post was named in honor of Brigadier General Richardson who served three tours of duty in the Alaska territory between 1897 and 1917.

The original military reservation was authorized to provide a permanent air base (Elmendorf Field), supply depot, and ground garrison for the defense of southern Alaska. The first cantonment area was constructed during 1940-1941 on the site of what is now Elmendorf Air Force Base. The construction program was initiated on June 8, 1940 by the Army Construction Quartermaster and was transferred to the Corps of Engineers in January 1941.

By December 7, 1941, 8,000 military personnel were stationed at the post (U.S. Army Alaska, 1971: 1). During World War II, Fort Richardson played a major role in the successful repulsion of the Japanese in the Aleutians and provided support to the Lend-Lease program between the United States and Russia.

4.2.1.3 Cold War, 1946 - 1989

Fort Richardson's mission during World War II set the stage for its Cold War role as an administrative center for Alaskan military operations. On January 1, 1947 the Alaska Command (ALCOM) was formed as one of the first unified commands by the Joint Chiefs of Staff (Denfeld, 1994: 14). The new command consisted of the Alaskan Air Command under the recently created Air Force, Alaskan Sea Frontier under the Navy, and Alaska Department under the Army. The creation of a special command for Alaska

emphasized the region's importance during the Cold War. Later in 1947, the Alaska Department was changed to U.S. Army Alaska.

With the formation of ALCOM, U.S. Army Alaska turned its attention to ground defense of Alaska and anti-aircraft defense in support of the Air Force. In the late 1940s the major Army unit in Alaska was the 71st Infantry Division. By the early 1950s the 71st Infantry Division had forces stationed at Fort Richardson, Eielson AFB, and Ladd AFB (Denfeld, 1994: 39).

In 1950 the property and facilities of Fort Richardson were divided between the Army and Air Force. Per Department of Army General Order Number 33, dated 10 October 1950, Elmendorf Field and the original cantonment area became the property of the Air Force. Fort Richardson was re-established on approximately 33,000 acres of remaining property (U.S. Army Alaska, 1971).

A new cantonment area was constructed for Fort Richardson in the 1950s. The layout of the new cantonment was orderly and compact. Most new facilities were of permanent, concrete construction. Administration buildings, barracks, and commercial, recreational, and religious facilities were constructed in the center of the cantonment, while a residential area of family housing units was developed to south and east. Warehouses, industrial facilities, and motorpools were, for the most part, located in an industrial area to the north.

Post Headquarters (Building #1), constructed in 1952 across from Building #600 on Richardson Drive, visually dominated the center of the cantonment. The curved layout of Richardson Drive emphasized the headquarters (Higginbotham/Briggs and Associates, 1991: 7-12). The building was not used as headquarters for U.S. Army Alaska, however, until 1954 when a center wing was added. Building #600 had been constructed in 1949 as a general-purpose facility, incorporating an enlisted barracks, administration offices, a mess, a post office, and a museum. Building #601, constructed in 1951 adjacent to Building #600 on Richardson Drive, was an enlisted barracks incorporating an indoor small arms firing range. Other facilities constructed in the cantonment center included the post theater (Building #2) in 1953, the post exchange/commissary (Building #5) in 1956, the chapel (Building #3) in 1954, and the recreation center/library (Building #636) in 1951.

By far, the most intensive construction in terms of number of buildings occurred in the residential area. In 1951 over 150 enlisted family housing units, in building number series 200 through 500, were constructed. In 1954 and 1955 another 44 family housing units were constructed in the 300, 400, and 500 series.

The industrial area to the north and west of the cantonment had already been largely developed during World War II around a circular railroad spur served by the Alaska Railroad. Further development in this area centered around storage, maintenance, and post engineering facilities. The engineering administration building (Building #730), now Public Works, was constructed in 1952. Building #724, another engineering building incorporating a store, bowling center, warehouse, and administration offices, was constructed in 1955.

In 1956 the 2d Infantry Division, the Indianhead Division, was moved from Fort Lewis to Alaska, while the 71st Infantry Division was rotated to Fort Lewis and deactivated. In December 1957 the 2d Infantry Division was deactivated, but its regiments remained in Alaska, the 9th at Eielson and Ladd and the 23d at Fort Richardson (Denfeld, 1994: 39).

An advancement in Fort Richardson's anti-aircraft defense capability occurred in 1959 with the deployment of four Nike missile batteries in the Anchorage area to replace obsolete anti-aircraft artillery batteries. One Nike missile battery, Site Summit, was established on Fort Richardson at Mount Gordon Lyon in the Chugach Mountains. Site Summit and the other three Anchorage-area batteries were under the 4th Missile Battalion, 43d Artillery, while five Nike missile batteries in the Fairbanks area were under the 2d Missile Battalion, 562d Artillery (Denfeld, 1994: 31). These two missile battalions were commanded by USARAL's Air Defense Group at Fort Richardson. Nike missile batteries operated in Alaska until 1979.

In 1963 USARAL's combat units reorganized under the 172d Infantry Brigade (Mechanized) at Fort Richardson and the 171st Infantry Brigade (Mechanized) at Fort Wainwright (U.S. Army Alaska, 1995: 4). Most of Fort Richardson's major facilities were in place by the late 1950s. Nevertheless, the 172d Brigade instituted a number of improvements during the 1960s and 1970s. New construction included the Child Care Center (Building #6) in 1965, 12 family housing units (300 series) in 1968, and improvement of Bryant Army Airfield. The Central Heat and Power Plant was converted to natural gas in 1969.

In March 1986 the 172nd Infantry Brigade was deactivated and superseded by the 6th Infantry Division (Light), or 6th ID (Light). The 6th ID (Light) was one of five light divisions formed by the Army during the 1980s to meet worldwide contingencies. As heir to Alaska's cold weather warfare tradition, the 6th ID (Light) had the distinction of being the U.S. Army's only subarctic and mountain trained unit.

Headquarters of the 6th ID (Light) was established at Fort Richardson. Two brigades were activated, the 1st Brigade at Fort Richardson and the 2d Brigade at Fort Wainwright. A roundout brigade, the Army Reserve 205th, was held in reserve in Minnesota. A number of historic units were reactivated in Alaska to support the 6th ID (Light), including the 4th and 5th battalions of the 9th Regiment, which had raised the flag at Sitka upon the October 18, 1867 purchase of Alaska from Russia, and the 17th Infantry Regiment, which fought at Attu with the 7th Infantry Division during World War II (Denfeld, 1994: 55).

On July 6, 1994 the 6th Infantry Division (Light) was deactivated. Army forces were reorganized under U.S. Army Alaska (USARAK) (U.S. Army Alaska, 1995: 6).

4.2.2 Literature Review

Inventory of historic properties on Fort Richardson has focused on the Cold War era. In 1995 the Alaska SHPO, via a grant from DoD's Legacy Program, inventoried Site Summit and documented 27 resources at the Nike Missile Launch and Battery Control areas. Twenty-six were determined eligible for the National Register as contributing resources of Nike Site Summit Historic District (Alaska State Historic Preservation Office, 1995).

In 1998 the *Cold War Resources Inventory, U.S. Army Alaska* (Draft) (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998b) was completed that focused on properties associated with USARAK's Cold War missions. Twenty-six properties on Fort Richardson were determined to have potential Cold War significance. The properties, all under 50 years of age, were considered under the National Register's Criteria Consideration G for resources *of exceptional significance* (Section 5.3). All properties were determined to be ineligible for the National Register. One document, however, was determined to be significant for its association with the Nike Site Summit Historic District (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998b).

General information on the history of Fort Richardson is also available from two organizations on post. The USARAK Public Affairs Office in the Headquarters (Building #1) maintains materials on Fort Richardson's history that it distributes to the public. Further documents relating to the military history of Fort Richardson are maintained by the Military Occupation Specialty Library in Building #600. In addition, the Alaska SHPO, located in the Frontier Building in Anchorage, and Anchorage Historic Properties, Incorporated are a useful repository of information relating to the history of the Anchorage area.

4.2.3 Resource Inventory

Two properties on Fort Richardson have been determined eligible for the National Register of Historic Places, Nike Site Summit Historic District and the Fort Richardson National Cemetery. Both have been listed on the National Register. Nike Site Summit Historic District was listed on July 11, 1996 and Fort Richardson National Cemetery was listed on August 22, 1984. Fort Richardson National Cemetery, however, is the property of the Veterans Administration and is not a management concern of USARAK.

One other property, Monument Corner, has been recommended for preservation by the Alaska SHPO, although it is ineligible for the National Register. The Cold War resources inventory for Fort Richardson also called for the preservation of a document, *Operating Manual, Alaska Tactical Facilities, Site Summit*, associated with historic operation of Site Summit (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998b).

These resources are described below.

4.2.3.1 Nike Site Summit Historic District

Nike Site Summit Historic District, comprised of 26 contributing properties, lies on Mount Gordon Lyon in the southeastern portion of the post. Properties of the district are separated into two areas, the Launch Area located at 3,100 foot elevation and the Battery Control Area located at 3,900 foot elevation. These areas, approximately 5,000 feet apart, are connected by a two-lane, gravel road, approximately 1.5 miles long.

The Battery Control Area (Map C), consisting of 10 properties, was the hub of activity at Site Summit and contained important communications and radar facilities. Acquisitions radars located incoming threats, while tracking radars and a computer, located in the Battery Control Building, guided missiles to targets. Information from the computer was relayed to the Launch Area. The Battery Control Commander determined when to launch missiles. Housing at the Battery Control Area could accommodate 50 personnel (Alaska State Historic Preservation Office, 1996).

The Launch Area (Map D), consisting of 16 properties, contained concrete missile launch structures, munitions magazines, and control buildings. It was protected by two rows of perimeter fencing (Alaska State Historic Preservation Office, 1996).

Properties of the district are listed in tabular format below followed by individual property descriptions taken from the *National Register of Historic Places Registration Form, Site Summit, Anchorage, Alaska* (Alaska State Historic Preservation Office, 1995).

Nike Site Summit Historic District

AHRS Number	Property Description	AHRS Number	Property Description
Battery Control Area		***Launch Area***	
ANC-792	Battery Control Building	ANC-800	High Explosive Magazine
ANC-793	Target Tracking Radar Shelter	ANC-801	Guided Missile Magazine
ANC-794	Missile Tracking Radar Shelter	ANC-802	Sentry Station
ANC-795	Target Ranging Radar Shelter	ANC-803	Sentry Station
ANC-796	Electrical Substation C	ANC-804	Guided Missile Maintenance Facility
ANC-797	Vehicle Garage Foundation	ANC-805	Vehicle Maintenance Shop and Storage Building
ANC-798	High Power Acquisition Radar Tower Foundation	ANC-806	Sentry Station
ANC-799	High Power Acquisition Radar Building	ANC-807	Launching Control Building
none	Helicopter Pad	ANC-808	Electrical Substation B
none	Bore Mast	ANC-809	Dog Kennel
		ANC-810	Missile Launch and Storage #1
		ANC-811 / ANC-812	Electrical Substations D
		ANC-813	Fuse and Detonator Magazine
		ANC-814	Missile Launch and Storage #2
		ANC-815	Missile Warhead Magazine

Battery Control Area

ANC-792: Battery Control Building

The Battery Control Building is a two-story, "T"-shaped building oriented on a north/south axis with the leg of the "T" on the west elevation. The main portion of the building (the top of the "T") measures 44 by 232 feet and is wood-frame with 16-inch cement asbestos board panel siding. This portion of the building is divided into 17 even bays. Bays have varying configurations of light aluminum windows and personnel doors. The floor plan of the first floor of the main portion contains a central hallway flanked by offices, storage rooms, and restrooms in the northern half and an open dining hall and kitchen in the southern half.

The second floor has a central hallway for the length of the building that is flanked by enlisted soldiers quarters, officers quarters, and restrooms.

The leg of the "T" measures 62 by 66 feet and is constructed of reinforced concrete with tilt-up concrete panels. This portion of the building is divided into 6 bays. The first floor of the floor plan contains the battery control van, radar control van, van maintenance repair room, generator room, radio and communications room, and boiler/mechanical room. The second floor of the leg contains the initial acquisition radar mount.

The present condition of the Battery Control Building is poor. Although windows are boarded, the building is not weathertight and is deteriorating.

ANC-793: Target Tracking Radar Shelter

The Target Tracking Radar Shelter is adjacent to the northeastern corner of the Battery Control Building. The lower section of the structure is a 20-foot diameter, 15,000 gallon fiberglass water tank. A clamshell metal enclosure is mounted on top for housing the radar. The clamshell is approximately 25 by 18 feet and is 21 feet high. It is connected to the Battery Control Building (ANC-792) via an enclosed catwalk. The radar and associated technology were removed when Site Summit was decommissioned. The structure is in good condition.

ANC-794: Missile Tracking Radar Shelter

The Missile Tracking Radar Shelter is adjacent to the southeastern corner of the Battery Control Building (ANC-792). The structure is identical to the Target Tracking Radar Shelter (ANC-793) and is in good condition.

ANC-795: Target Ranging Radar Shelter

The Target Ranging Radar Shelter was added to the Battery Control Area in 1962. It is 22 feet east of the Battery Control Building (ANC-792). The lower section of the shelter is a 12 by 12-foot steel-frame tower that is 34 feet high. Atop the tower is a 16 by 9-foot building constructed of steel and corrugated aluminum siding that housed the radar. Atop this building is a clamshell roof. A circular metal stair provides access to the top of the tower. All radar technology has been removed. The shelter is structurally sound although the corrugated siding is being removed by winds.

ANC-796: Electrical Substation C

This Electrical Substation is a 20 by 52-foot, metal-framed building with corrugated aluminum siding and gabled roof. It is located 40 feet southwest of the Battery Control Building (ANC-792). The building contains a double-door on the north elevation, a vent hood on the west gable end, and two small cupolas at the ridge of the roof. The building is in good condition.

ANC-797: Vehicle Garage Foundation

The foundation is approximately 200 feet west of the Battery Control Building (ANC-792) and once supported a garage removed sometime after 1981. The concrete foundation measures 16 by 42 feet.

ANC-798: High Power Acquisition Radar Tower Foundation

The foundation is immediately west of the High Power Acquisition Radar Building (ANC-799). The 25 by 25-foot concrete foundation is all that remains of the radar tower.

ANC-799: High Power Acquisition Radar Building

This building was added in 1962 to house a new High Power Acquisition Radar. The building is 80 feet northwest of the Battery Control Building (ANC-792). It measures 34 by 50 feet and is constructed of reinforced concrete. Communication antennas are on the roof. The building is in good condition.

Helicopter Pad (No AHRS Number)

This is a gravel pad measuring 120 feet in diameter. It is approximately 300 feet northeast of the Battery Control Building. The pad is in good condition. Adjacent to the northwestern edge of the pad is a 5 by 8-foot concrete structure that is part of the wastewater treatment system.

Bore Mast (No AHRS Number)

This is a single wood pole approximately 34 feet tall imbedded in a concrete base and located 520 feet west of the Battery Control Building.

Launch Area

ANC-800: High Explosive Magazine

The High Explosive Magazine in on the eastside of the road connecting the Battery Control Area and the Launch Area. The earth-covered magazine is constructed of reinforced concrete and measures 24 by 40 feet. The exposed front of the magazine contains a 16 by 16-foot opening with two 6-inch thick, solid metal doors. On either side of the doors are blast louvers. An "I"-beam extends from the back of the magazine through the front doors out approximately 16 feet to a supporting frame. The magazine is in good condition.

ANC-801: Guided Missile Magazine

The Guided Missile Magazine is approximately 350 feet south of the High Explosive Magazine on the east side of the road connecting the Battery Control Area and the Launch Area. The magazine is identical to the High Explosive Magazine (ANC-800).

ANC-802: Sentry Station

The Sentry Station is located on the west side of the road connecting the Battery Control Area and the Launch Area. The 9 by 12-foot building is of timber construction with a gabled roof. A personnel door is on the end that faces away from the Battery Control area. The remaining sides have window openings. The interior station is located at the entrance to the Launch Area in the middle of the road to force arriving and departing traffic to pass on either side. The station is in fair condition.

ANC-803: Sentry Station

This sentry station is located at the entrance to the Launch Area. It measures 6 by 8 feet and is of wood-frame construction. It has a shallow sloping shed roof. The station is in fair condition with all openings covered with plywood.

ANC-804: Guided Missile Maintenance Facility

The Guided Missile Maintenance Facility is a one-story, shallow gabled-roof building measuring 25 by 50 feet. It has a concrete foundation wall that extends above grade to form a three-foot pony wall. The building has a wood-frame with corrugated metal siding. The building is open in the interior. The building contains two 8 by 12-foot overhead doors.

ANC-805: Vehicle Maintenance Shop and Storage Building

The Vehicle Maintenance Shop and Storage Building is a wood-frame building with cement asbestos paneling and a shed roof. It measures 40 by 61 feet. The building is set into a hill; the back wall is poured concrete and acts as a retaining wall. The building has five overhead doors.

ANC-806: Sentry Station

This sentry station is at the entrance to the inner fencing at the Launch Area. The station is an 8 by 12-foot wood-frame building with a shed roof. All opening are boarded with plywood.

ANC-807: Launch Control Building

The Launch Control Building is in the northeastern portion of the Launch Area, approximately 50 feet southeast of the Vehicle Maintenance Shop and Storage Building (ANC-805). It consists of three buildings joined to create a single facility.

The central portion of the building is of wood-frame construction with plywood siding and a flat roof. This portion measures 60 by 97 feet. The first 24 feet of the length is two stories high, while the remaining length is a single story. The two-story section was an open space for missile repair and testing. The rest of the area includes a latrine, parts room, first aid room, ready room, and office.

The southwestern portion of the building is constructed of reinforced concrete and measures 37 by 47 feet. It has a flat roof. This portion of the Launch Control Building housed the launch control van, boiler room, pump room, and compressor room. A 15,000 gallon, above-ground water tank is adjacent to the northwest elevation.

The northeastern portion of the building is concrete block with a shed roof. This portion was added sometime between 1959 and 1963.

ANC-808: Electrical Substation B

This substation is 40 feet northeast of the Launch Control Building. It is metal-framed building measuring 24 by 27 feet. It has corrugated aluminum siding and a corrugated aluminum, gabled roof.

ANC-809: Dog Kennel

The kennel is 350 feet south of the Launch Control Building. It is a wood-frame building measuring 15 by 12 feet with a gable roof. It is divided into ten kennels. Chainlink fencing forming a dog run extends from the south elevation.

ANC-810: Missile Launch and Storage #1

This structure is constructed of poured concrete with tilt-up concrete panels. It measures 58 by 113 feet with a large concrete blast pad adjacent to the front. The structure is covered on three sides by earthen fill. A 12-foot high earthen berm is in front of the blast pad.

ANC-811 and ANC-812: Electrical Substations D

These two identical electrical substations are metal-framed, corrugated aluminum structures with gabled roofs. Each measures 14 by 24 feet. They are located approximately 55 feet behind each of the Missile Launch and Storage structure.

ANC-813: Fuse and Detonator Magazine

This earth-covered bunker is constructed of reinforced concrete and measures 9 by 10 feet. A 3 by 3-foot metal door is located on the exposed north facade. The magazine is located equidistant from each of the Missile Launch and Storage structures.

ANC-814: Missile Launch and Storage #2

This structure is identical to Missile Launch and Storage #1 (ANC-810). It is located 290 feet southeast of Missile Launch and Storage #1.

ANC-815: Missile Warhead Magazine

This structure is approximately 300 feet southeast of Missile Launch and Storage #2 (ANC-814). It is identical in construction to the High Explosive and Guided Missile magazines (ANC-800 and ANC-801).

4.2.3.2 Fort Richardson National Cemetery (Veterans Administration Property), ANC-013

Fort Richardson National Cemetery is located on the north side of Davis Highway next to Camp Carroll, just over one mile northeast of Bryant Army Airfield. The cemetery contains the graves of American, Japanese, Soviet, Canadian, and British soldiers killed during World War II. The cemetery also contains the grave of Kermit Roosevelt, the son of Theodore Roosevelt, who was interred on June 8, 1943 (Veterans Administration, 1996). A plaque at the entrance gate was donated by the Roosevelt family (Alaska State Historic Preservation Office, records).

The cemetery is owned and managed by the Veterans Administration that acquired the property from the Army on May 28, 1984. Although the 39-acre cemetery is located within the post boundary, Fort Richardson has no management responsibility or oversight of the property.

4.2.3.3 Monument Corner, ANC-014

This historic property is a monument erected in 1935 by the Daughters of the American Revolution to commemorate the opening of the Anchorage-Matanuska Highway. The highway was a Great Depression-era project built to connect the Department of Agriculture's newly established agricultural colony in Matanuska with Anchorage. The monument is located on the northwestern side of the 90-degree curve in the former Davis Highway on the western side of Fort Richardson (Map E).

The Alaska SHPO, determining the monument to be ineligible for the National Register, nevertheless argued for its preservation due to its regional historic significance.

> *[T]he correlation between the project it commemorates and the Mat-Su Colony Farm expansion program during the Depression is certainly significant on the National level... This correlation... is certainly tenuous, but the monument should not be endangered by the determination of not eligible. That determination refers to the monument structure itself and not to the events surrounding the highway's construction. We would, therefore, like to see the monument preserved in place and that provision be made for its continued existence* (Alaska State Historic Preservation Office, 1984).

Therefore, the monument will be managed as a National Register-eligible property.

4.2.3.4 Operating Manual, Alaska Tactical Facilities, Site Summit

The Cold War document, *Operating Manual, Alaska Tactical Facilities, Site Summit*, is a three-volume manual produced by the Army Corps of Engineers in 1959 for use by maintenance personnel stationed at the Site Summit missile battery. The manual was developed *to provide the basis for instruction for supervisory operating and maintenance personnel and to provide a reference file of equipment data* (Army Corps of Engineers, 1959). The operating manual provides data sheets, diagrams, and manufacturers' operating instructions for equipment at the missile site. The manual covers the electrical system, plumbing, heating, ventilating, refrigeration, kitchen equipment, boiler plants, gasoline systems, and other miscellaneous equipment. The document does not address weapons systems, communications, and other technical facilities. These systems were covered in a separate operations manual (now missing). The manual is in good condition and is housed in a small library at Fort Richardson's Environmental Division (Building #724) (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998b).

4.2.3.5 Inventoried Properties Not Requiring Management

The following properties on Fort Richardson have been determined not eligible for the National Register, pending Alaska SHPO concurrence, and will not require management during 2002-2006. However, these properties were evaluated under Criteria Consideration G and should be reevaluated under standard National Register criteria (Section 5.3) upon reaching 50 years of age.

Inventoried Properties Not Requiring Management During 2002-2006

Building Number	AHRS Number	Year of Construction	Description
1	ANC-01088	1952	Post Headquarters
61	ANC-01089	1955	Air Raid Shelter
47430	ANC-01091	1958	Hangar 1
47431	ANC-01092	1968	Hangar 2
47432	ANC-01093	1960	Flight Operations Center
47433	ANC-01094	1963	Hangar 3
47434	ANC-01095	1958	Oil Skimmer Facility
47435	none	1958	Inflammable Storage Facility
47436	none	1958	Fire Pump Station
47437	none	1966	POL
48000	ANC-01095	1961	Flight Control Tower
48010	none	1981	Fire/Rescue Station
59000	ANC-01096	1959	Special Weapons Shop
59001	ANC-01097	1959	Sentry Station
59003	ANC-01098	1964	Guided Missile Magazine
59004	ANC-01099	1967	Guided Missile Magazine
59005	ANC-01100	1967	Guided Missile Magazine
59006	ANC-01101	1967	Guided Missile Magazine
59007	ANC-01102	1967	Guided Missile Magazine
59008	ANC-01103	1967	Guided Missile Magazine
none	ANC-01090	circa. 1940	Roosevelt Road Transmitter Bunker

4.2.4 Area of Concern: Properties Fifty Years of Age and Older

The area of greatest concern for historic resources on Fort Richardson is properties 50 years of age or older. Forty-six intact properties on Fort Richardson predate the realignment of the installation in 1950. Twenty-two of these properties are on Camp Carroll.

Properties on Fort Richardson 50 Year of Age or Older

Building Number	*Year of Construction*	*Designation*	*Building Number*	*Year of Construction*	*Designation*
53	1949*	Officers Quarters	58780	1942	Fire Station
600	1949*	General /Administration	57024	1942	Administration
821	1943	General Storehouse	57033	1943	Storehouse
822	1943	General Storehouse	57036	1942	Storehouse
968	1941	General Warehouse	57037	1942	Storehouse
972	1941	General Warehouse	57040	1942	Administration
8126	1948	Ski Shop	57112	1945	Vehicle Maintenance
27000	1942	Golf Club House	57226	1942	Clinic
27054	1942	General Storehouse	57409	1942	Latrine
35829	1942	Igloo Storage	57427	1942	Family Housing
35830	1942	Igloo Storage	57433	1942	Administration
35832	1942	Igloo Storage	57434	1942	General^
35834	1942	Igloo Storage	57438	1942	Chapel
35836	1942	Igloo Storage	57451	1942	Officers Quarters
35838	1942	Igloo Storage	57452	1942	Officers Quarters
45726	1942	Vehicle Maintenance	57453	1942	Officers Quarters
45727	1942	Vehicle Maintenance	57454	1942	Officers Quarters
45990	1942	Igloo Storage	57455	1942	Officers Quarters
45992	1942	Igloo Storage	57456	1942	Officers Quarters
45996	1942	Igloo Storage	57457	1942	Officers Quarters
45997	1942	Igloo Storage	57458	1942	Officers Quarters
58508	1942	Water Pump	57501	1942	Latrine
58510	1942	General Storehouse	57528	1942	Enlisted Barracks

*These properties will reach the 50-year plateau within a year and are therefore included.
^Camp Carroll facility.

4.3 Mapping

4.3.1 Geographic Information System

A GIS can be a valuable tool for cultural resources management and its integration with other management programs on Fort Richardson. The Environmental Division installed a GIS in 1993 to support management programs on the three USARAK posts. The primary GIS software used is ArcInfo© (Version 7.0.3) (produced by Environmental Systems Research Institute). ArcInfo© is principally a vector-based GIS that can incorporate raster functionality. ERDAS Imagine© software (Version 8.1) is also online. Imagine© is a raster-vector based GIS with some of the industry's most advanced image processing capabilities. These two software packages are resident on the SUN Sparc© 2 and form a powerful GIS environment for Fort Richardson (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a).

Development of the GIS database for Fort Richardson is in progress. Data layers have been provided primarily by the Center for Environmental Management of Military Lands and the Cold Regions Research Engineering Laboratory. In addition, USARAK has GIS technicians who also develop data layers. To date, development has focused on natural resources and environmental data.

Army Pamphlet 200-4, providing guidance for implementation of AR 200-4, calls for the development of GIS data layers to support cultural resources management and cultural landscape planning (Army Pamphlet (AP) 200-4, 2-1(b)). Cultural landscape planning integrates cultural resources with natural ecosystems to address the complexity of human cultural interaction with the natural environment through time. The GIS is particularly a useful tool in relating cultural resources to natural features, such as terrain, habitat areas, and topography (AP 200-4, 2-1(b)).

Using information provided by the Alaska SHPO, USARAK developed archeological sites (restricted access) and archeological survey areas data layers for Fort Richardson in 1998. These cultural resources data layers will allow Environmental Division and the CRM to more easily integrate concerns for cultural resources preservation into planning and review of projects. The GIS may also create maps to support cultural resources management (*e.g.* showing sensitive cultural resource areas to be avoided by military personnel). Any maps produced will comply with requirements of the ARPA, as discussed in Section 6.2. During 2002-2006 cultural resources data layers will be developed and updated as needed.

4.3.2 Alaska SHPO Standards

Coordination with the Alaska SHPO often involves submitting maps as part of supporting documents. For coordination, the Alaska SHPO prefers U.S. Geological Survey (USGS) maps (1:63,360 or 1:25,000 series). In the 1:63,360 series the area occupied by Fort Richardson falls within four Anchorage quadrangles, A-7 (revised in 1974), A-8 (revised in 1963), B-7 (revised in 1972), and B-8 (revised in 1965).

5.0 PROTECTION PLAN

Cultural resources management within the Army includes procedures for inventory, evaluation / nomination, and preservation / mitigation of historically significant resources. Procedures implement general federal agency requirements stipulated by documents such as the NHPA, Sections 110 and 106 and Executive Order 11593, *Protection and Enhancement of Cultural Environment*, May 13, 1971.

Consultation is used to facilitate compliance procedures and ensure protection of significant cultural resources in accordance with Section 106 of the NHPA. Although the Alaska SHPO is the primary partner in this process, consultation may also involve the Advisory Council, Native Alaskan corporations, and the public. Guidance for implementation of cultural resources management is provided by Army Regulation 200-4, *Cultural Resources Management*. This internal regulation, in addition to outlining responsibilities of cultural resources managers, establishes guidelines for cultural resources planning. This ICRMP spells out general procedures mentioned above with regard to USARAK's military mission and supporting programs on Fort Richardson.

5.1 Issues

There are no overwhelming issues confronting cultural resources management on Fort Richardson. Although military training may involve intensive use of training areas, it does not usually result in significant risk to cultural resources. Effects on cultural resources are more likely to result from USARAK's responsibility for maintaining and upgrading facilities and conserving natural resources.

Management objectives of the cultural resources program are generally compatible with those of other management initiatives on Fort Richardson. Programs that cultural resources management may impact include the following:

5.1.1 Natural Resources Management

Cultural and natural resources management are administered jointly by the Natural Resources Branch, Public Works. Therefore, the two programs are highly integrated This is reflected in Fort Richardson's *Integrated Natural Resources Management Plan* (INRMP) (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a), which includes measures to protect cultural resources during natural resources management practices.

Generally, natural resources management complements the preservation of archeological sites by limiting ground disturbance in sensitive natural areas. Such sensitive areas include:

- wetlands,
- old growth forest,
- alpine tundra,
- stream riparian zones (including Ship Creek and Eagle River), and
- the Glenn Highway Green Belt (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a).

In addition, natural resources management practices have very little potential to impact historic properties, as these properties occur in developed areas of Fort Richardson.

Nevertheless, at least one initiative identified in the INRMP has potential to negatively impact archeological sites.

- ***Outdoor recreation*** opportunities on Fort Richardson contribute to the quality of life not only of the military community but also of the Anchorage community in general. USARAK provides quality opportunities for outdoor recreation (*e.g.* hunting, fishing, off-road vehicle areas, and winter recreation) on Fort Richardson (Center for Environmental Management of Military Land and Gene Stout & Associates, 1998a). However, the policy of public access has potential to increase the risk of vandalism to cultural resources. Although some vandalism has been reported (*e.g.* Nike Site Summit Historic District), USARAK will seek to balance the needs of public access and cultural resources protection on Fort Richardson during 2002-2006.

5.1.2 Integrated Training Area Management

In 1994 USARAK initiated the Integrated Training Area Management (ITAM) program on Fort Richardson with implementation of the Land Condition Trend Analysis program. A GIS was installed at Fort Richardson in 1993, and by summer 1995, a GIS operator was contracted.

An important component of ITAM is Land Rehabilitation and Maintenance (LRAM). LRAM involves repair of damaged lands and use of land construction technology to avoid future damage to training lands. LRAM uses technologies, such as revegetation and erosion control techniques, to maintain soils and vegetation required for accomplishment of the military mission. These efforts are specifically designed to maintain quality military training lands and minimize long-term costs associated with land rehabilitation or additional land acquisition (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a: 126).

Through the use of heavy equipment and erosion control techniques, LRAM may result in ground disturbance that can negatively impact archeological sites. However, care is taken to ensure that heavy equipment operations associated with LRAM do not disturb native vegetation and soils more than absolutely necessary. Generally, LRAM on Fort Richardson does not require extensive use of heavy equipment or massive land reshaping (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a: 126). LRAM project are also planned to avoid historically significant archeological sites or areas of cultural resource sensitivity.

5.1.3 National Environmental Policy Act

On Fort Richardson cultural resources protection is integrated into the National Environmental Policy Act (NEPA) review process. As projects on Fort Richardson are reviewed for environmental impacts under NEPA, they are also considered for potential effects to cultural resources. The review process is streamlined in that the CRM also serves as the NEPA Coordinator for Fort Richardson. NEPA documents, such as Environmental Assessments, also include cultural resources concerns.

5.1.4 Spill Response / Environmental Remediation

Some environmental protection measures have potential to affect cultural resources on Fort Richardson. Spill response and environmental remediation may result in disturbance to archeological sites if soils are excavated. Environmental personnel should be aware of the presence of archeological sites to avoid inadvertent damage. The incorporation of archeological maps into GIS databases will aid awareness.

5.1.5 Public Works Projects

The facilities maintenance and construction mission has potential to impact cultural resources management of USARAK. Preservation considerations for historic properties can result in a greater project review period (and increased costs) than that for historically insignificant properties; this is particularly true for projects involving alteration or demolition of properties. On occasion, mitigation for cultural resources may entail modification of a proposed project.

5.1.6 Operations and Training

Cultural resources management has not inhibited training operations on Fort Richardson and has little potential to do so. However, it is possible for cultural resources to affect training if significant archeological resources are discovered in areas where training requires ground disturbance.

There are no known potential conflicts with other USARAK programs.

5.2 Inventory

Inventory occurs as the initial stage of cultural resources management. Both Executive Order 11593, *Protection and Enhancement of Cultural Environment* (1971) and Section 110 (1980) of the NHPA require each federal agency to locate and inventory all properties under that agency's control that may be eligible for inclusion in the National Register. Inventory of both historic properties and archeological resources on Fort Richardson is incomplete.

Inventories identify cultural resources using literature review and physical survey. Documentation on each inventoried resource is incorporated into the Alaska Heritage Resources Survey (AHRS) maintained by the Alaska SHPO. The AHRS is a database of all reported historic and prehistoric resources within the State of Alaska. Over 21,500 resources have been recorded within the AHRS (Alaska State Historic Preservation Office, undated).

It is generally recognized that inventories may not provide sufficient information to assess the historic significance, *i.e.* National Register eligibility, of identified resources. Assessment is often reserved for the evaluation stage of investigation (Section 5.3).

Different procedures are associated with inventory of archeological resources and historic properties. A description of the various procedures and an assessment of the status of USARAK with regard to both areas are discussed below.

5.2.1 Archeological Resources

Inventory of archeological resources is accomplished through a survey, often referred to as a "Phase I" investigation. The most common survey method implemented on Fort Richardson is a *reconnaissance survey*, consisting of surface reconnaissance supplemented by subsurface testing when deemed necessary. Findings are usually limited to the location and probable size of a site and a recommendation as to the need, or lack thereof, for further investigation. AHRS forms are completed for each site and submitted to the Alaska SHPO. *Completion of a survey fulfills the inventory requirements for the area covered*. USARAK must obtain Alaska SHPO concurrence with results and recommendations of surveys.

Only limited portions of Fort Richardson have been surveyed for archeological resources. During 2002-2006 archeological inventory of Fort Richardson will be a major task of USARAK's cultural resources program. Although 100 percent inventory is the ultimate goal of Section 110 compliance, comprehensive inventory may not be practical or even possible in the case of Fort Richardson. Previous archeological investigations indicate that the installation has a low site density and may be considered to have *low potential* to contain archeological resources of significance to prehistory. Generally, archeological inventory will be given a lower priority than historic properties inventory in the cultural resources program over the next five years.

Some areas of Fort Richardson will be exempted from archeological inventory requirements during 2002-2006 due to mission considerations, low site potential, or limited potential for mission impact.

- ***Impact Area***: Fort Richardson has 2,195 acres of designated impact area within Eagle River Flats (ERF). The ERF impact area contains unexploded, anti-personnel ordnance and is off-limits to cultural resources management.
- ***Alpine Tundra***: On Fort Richardson the alpine zone generally begins at 2,000 feet above mean sea level. Alpine tundra is the most extensive ecologically sensitive zone on the installation and is protected by restrictions on training. In particular, off-road vehicle maneuver is prohibited. Alpine areas of the installation have been identified by the predictive model to have a low potential to contain archeological sites (Steele, 1980). This combination of low site potential and limited mission impact warrants exclusion from archeological investigations.
- ***Wetlands***: Wetlands on Fort Richardson include freshwater and saltwater marshes, bogs, and lakes. These areas often contain standing water and have extremely low potential to contain archeological deposits with integrity. *Note:* Riparian areas along Fort Richardson drainages should not be excluded from survey.
- ***Cantonment / Developed Areas***: The cantonment area is the central, developed portion of the installation. Containing 568 buildings, it covers 5,760 acres and includes most areas not part of training or impact areas (Center for Environmental Management of Military Lands, 1998a). Due to the high level of disturbance from development, most of the cantonment has negligible potential to contain archeological sites that have integrity. However, isolated portions of the cantonment, notably near Ship Creek and northeast of Camp Carroll, remain relatively undisturbed and may be suitable for survey.

5.2.1.1 Priorities for Archeological Survey, 2002-2006

During 2002-2006 priorities for archeological survey will be determined annually, based on projected mission impacts and proposed USARAK undertakings. Reconnaissance surveys will be conducted as

funding permits to cover large tracts of land. Surveys will focus on areas of concern for archeological sites, identified in Section 4.1.4. In particular, areas that combine significant potential for mission-related ground disturbance and high archeological sensitivity will be given priority. The advantage of these surveys is that they remove large portions of the installation from the need for future survey and effectively implement USARAK's commitment to inventory per Section 110 of the NHPA.

Given anticipated mission impacts over the next five years, some locations can be identified as probable areas for reconnaissance survey. These areas are prioritized and listed below:

Priorities for Archeological Survey, 2002-2006

Priority	Description	Location	Acreage	Cost	Year	Comments
high	Upper Ship Creek / Training Areas 11E, 12B, and 13	Upstream portions of Ship Creek above the golf course to the installation boundary.	250	$30,000	2002	Includes an area of historic occupation identified by the Denaina Team and a portion of the Girdwood-Ship Creek Connecting Trail (Iditarod Historic Trail). The survey area has minimal training impact due to the protection of the Ship Creek Green Belt.
high	Knik Arm / Training Area 1 (A,B,C)	Northern portion of post along Knik Arm	6,813^	$65,000	2003	Intensive training and erosion hazard in areas identified by the Denaina Team as having high archeological sensitivity.
moderate	Upper Eagle River / Training Areas 5 and 6 (A,B)	Eagle River and Clunie Creek drainages	2,267^	$30,000	2004	Combines moderate training intensity and sensitive archeological areas identified by the Denaina Team.
moderate	Training Areas 7(A,B) and 9 (A,B)	Fossil Creek drainage	3,512^	$50,000	2004	Combines high archeological sensitivity with low training impact.
low	Training Area 2 (A,B) / Lake Clunie	Northeastern portion of post	2,492^	$35,000	2005	Area characterized by wetlands and likely crossed by a portion of the Iditarod Trail. Lake Clunie has been identified as an historic activity area by the Denaina Team.

Priority	Description	Location	Acreage	Cost	Year	Comments
low	Iditarod Historic Trail (Anchorage - Birchwood Segment)	North of Glenn Highway / *Note*: Other portion of trail covered by Ship Creek survey	4,000^	$70,000	2006	This survey is lower priority. Actual route of the historic trail across the post is unknown.

^Actual survey acreage will be a fraction of the total acreage indicated.
*These moderate and low priority surveys will be scheduled at the discretion of the CRM given annual funding projections.

High priority surveys address archeologically sensitive areas identified by the Denaina Team (Section 4.1.4.4). The Knik Arm/Training Area 1 survey combines relatively high training intensity with locations of high archeological sensitivity. In particular, an historic fish camp and two other potential archeological sites have been identified along the Knik shoreline. Bluffs that are rapidly eroding mark the shoreline at Training Area 1.

Another high priority survey area is upper Ship Creek. A number of historic house depressions have been identified in an area upstream from the new golf course. The Ship Creek drainage also has potential to contain sites associated with the Iditarod Trail.

With the exception of these high priority areas, general emphasis for inventory during 2002-2006 will be given to project-specific surveys. An archeological survey will be conducted for any proposed undertaking with potential for ground disturbance in areas not previously surveyed and outside exempted areas listed in Section 5.2.1. Undertakings will be reviewed for ground disturbance through NEPA channels (Section 5.4.2). The disadvantage of project-specific surveys is that they may result in delays to USARAK projects and can disrupt the military mission. For this reason, project-specific surveys will be scheduled for completion at least 30 days prior to the start of projects.

Scheduling of both reconnaissance and project-specific surveys is further complicated by climatic conditions. Surveys require considerable early planning due to long periods of snow cover which preclude survey.

5.2.1.2 Archeological Survey Methods

A cultural resources professional with minimum qualifications as defined in 36 CFR 61, i.e. a Masters degree in archeology or anthropology and at least two years of relevant experience, will supervise all archeological surveys conducted on Fort Richardson. The installation Cultural Resources Manager will provide general survey areas to contractors who will:

- **Determine final survey area**: Only areas with potential to contain significant archaeological sites that might be affected by the USARAK military mission will be surveyed. Therefore, areas that are already highly disturbed (*e.g.* improved areas, borrow pits, etc.) and areas inaccessible to military training or other USARAK undertakings (*e.g.* wetlands, steep slopes, etc.) will be excluded. Areas that have been previously surveyed (Map A) will also be excluded.

- **Survey**: The archeologist will be responsible for conducting surveys according to standards set by the Alaska SHPO and will complete *Alaska Heritage Resources Survey* (AHRS) entries for all identified sites. The archeologist will avoid removal of artifacts to the greatest extent possible. Artifacts collected during the survey will be submitted to USARAK for curation. Submitted artifacts will be classified according to site and clearly labeled.
- ***Submit report***: A report (3 copies) will be submitted to USARAK including, but not limited to:
- a description of survey methods,
- a short description of sites identified including a determination of the need for further evaluation (in the case of sites potentially eligible for the National Register) or lack thereof (in the case of sites ineligible for the National Register),
- copies of completed AHRS forms,
- a map of the survey area(s), and
- a map of inventoried archeological sites.
- ***GIS data layers***: If possible, maps will be digitized and submitted to USARAK in a format compatible with ArcInfo/ArcView.

USARAK will submit copies of the report to the Alaska SHPO .

5.2.2 Historic Resources

According to guidelines established by the National Register of Historic Places, a property normally must be at least 50 years old (its significance achieved 50 years ago) to be considered historic and eligible for the National Register. Therefore, historic inventories focus on buildings, structures, and objects meeting those age requirements.

An exception to this policy has been made for Cold War properties (1946-1989). In 1991 the Defense Appropriations Act established the Legacy Program to promote conservation of irreplaceable biological and cultural resources on DoD lands. One of the nine task areas of the Legacy Program involved inventory of properties associated with the Cold War heritage of DoD (Department of Defense, 1994). In 1996 the Legacy Program funded an inventory of the Nike Missile Battery at Site Summit (Alaska State Historic Preservation Office, 1996). A comprehensive Cold War inventory for Fort Richardson was completed in 1998 (Center for Environmental Management of Military Lands and Gene Stout and Associates, 1998b).

5.2.2.1 Priorities for Historic Inventory, 2002-2006

Inventory of the 46 properties 50 years of age or older is the only remaining requirement for historic properties inventory on Fort Richardson. Documentation of these properties will be the highest priority for cultural resources inventory (including archeological resources) during 2002-2006.

Priorities for Historic Inventory, 2002-2006

Priority*	Description	Location	Cost	Year	Comments
high	Historic Properties Inventory (50 year of age and older)	Fort Richardson cantonment	$70,000	2002	The 46 properties are listed in Section 4.2.4.

5.2.2.2 Historic Inventory Methods

An inventory study for historic resources includes literature reviews and on-site inspections. Records and documents are reviewed to determine ages of properties and their historic context. Inspections are made of properties on site. Inventories result in the filing of AHRS entries with the Alaska SHPO and recommendations as to the potential National Register eligibility of properties. USARAK must obtain Alaska SHPO concurrence with results and recommendations of historic inventories.

Standards for documentation of historic properties have been established by the Historic American Buildings Survey (HABS). HABS is a section of the National Park Service promoting comprehensive documentation of buildings, sites, structures, and objects significant to American history and creation of a HABS archive within the U.S. Library of Congress. HABS documentation may be conducted on four levels:

- ***Level I Documentation***: Level I is the most in-depth and labor intensive. It includes a full set of field-measured drawings along with maps, black and white photos of interior and exterior, written historical and descriptive accounts, evaluation of significance, and a list of sources.
- ***Level II Documentation***: Level II differs from Level I in using original drawings not measured in the field. Accompanying materials are the same as those required for Level I.
- ***Level III Documentation***: Level III documentation involves a sketch site plan and black and white photos of the interior and exterior. It includes a description of history and evaluation of significance.
- ***Level IV Documentation***[3]: Level IV documentation is the least intensive and includes a sketch site plan and black and white photographs. A short narrative description and evaluation are also given.

Inventories of historic properties generally correspond to HABS Level IV or III documentation. HABS Level I and II documentation is typically reserved for mitigation (Section 5.4.4.2).

5.3 Evaluation and Nomination

The second stage of cultural resources management is evaluation. Evaluative studies constitute the mechanism by which inventoried resources are assessed against criteria of the National Register and upon which all subsequent management actions are based. The result of an evaluation is a determination of a resource's eligibility or ineligibility for the National Register. Both Section 110 of the NHPA and Executive Order 11593 require federal agencies to evaluate inventoried cultural resources.

Evaluative studies are an assessment of a resource's significance. Because significance can be a subjective concept, the National Register has developed specific criteria for assessment. These are provided in 36 CFR 60.4 and are as follows:

> **Criteria**: The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that

[3]According to the Alaska SHPO, Level IV documentation is no longer recognized by HABS/HAER. However, this level may be used to meet Alaska SHPO requirements for general inventory of historic properties.

possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
B. that are associated with the lives of persons significant in our past; or
C. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. that have yielded, or may be likely to yield, information important in prehistory or history.

The National Register also has seven special considerations for resources that may meet above criteria but are usually excluded from eligibility. These are listed below.

Criteria Considerations: Ordinarily... structures that have been moved from their original locations, reconstructed historic buildings, ...and properties that have achieved significance within the last 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or
B. a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or
D. a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
G. a property achieving significance within the past 50 years if it is of exceptional importance.

In accordance with Army guidance, Criteria Consideration G has been applied on Fort Richardson to USARAK and Army National Guard properties associated with the Cold War period (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998b). Generally, however, the seven criteria considerations are unlikely to apply to other resources on Fort Richardson.

5.3.1 Prehistoric Resources

Evaluations of archeological resources are referred to as Determinations of Eligibility or Phase II investigations. National Register Criterion D is the most commonly applied criteria for prehistoric sites. Criterion D is probably the most difficult of all criteria to meet because it provides no standard for determining the scientific/research value of resources. Determination of a resource's potential for contribution to knowledge of history/prehistory involves considerations of current theoretical and methodological issues in anthropology and archeology. Typically, these issues differ with regional and temporal association. Therefore, regional problems in prehistory and any guidance provided by the Alaska SHPO are important in providing a background for assessment via Criterion D.

In 1980 the predicative model for archeological resources (Steele, 1980) identified the following research issues with potential to be addressed by archeological investigations on Fort Richardson:

- demographic patterns and settlement systems,
- early postglacial human occupation,
- Eskimo utilization in the Cook Inlet region prior to Denaina emergence,
- the timing of Denaina penetration,
- Russian and American settlement life,
- coastal-inland interactions,
- resource scheduling,
- trade,
- technological adaptions, and
- intrasite spatial analysis (Steele, 1980).

Archeological sites inventoried on Fort Richardson to date have yielded little data pertinent to these research issues.

In addition to being associated with research interests, such as those described above, sites must be of sufficient physical and cultural integrity to produce viable data. To have physical integrity, an archeological site must represent *in situ* remains of human activity which have not been severely disturbed either by natural forces or subsequent human activity. Little information can be gathered from a site where its context has not been preserved. Evaluations address integrity and context on a number of levels; typical considerations include:

- Is the site so disturbed that the spatial relationship among artifacts has been lost?
- Does the site clearly represent a particular type? Examples include habitation sites and lithic workshops.
- Does the site contain diagnostic artifacts or materials that can be radiocarbon dated?
- Can subsistence data be gathered?
- Are artifacts of sufficient density to determine activities and functions?

Evaluations seek temporal classification of a site along with determination of a site's type or function.

Evaluation of Fort Richardson's known archeological sites is complete with all five sites being determined ineligible for the National Register on the basis of initial investigation.

5.3.2 Archeological Evaluation Schedule

During 2002-2006 evaluation of archeological resources on Fort Richardson will be required only if new archeological resources are discovered. Upon initial inventory (Phase I) of an archeological site, the archeologist may:

- determine that the site is *ineligible* for the National Register, or
- determine that further investigation is needed to evaluate research potential and eligibility for the National Register (*i.e.* the site is *potentially eligible*).

If a newly inventoried site requires further investigation to determine eligibility, a Phase II investigation will be planned for the site within two years of initial inventory.

The Phase II investigation will result in a determination of eligibility. Upon completion of the investigation, the archeologist must submit including, but not limited to, the following: ***a short description of methods, a determination of eligibility for the site, a description of significance for National Register-eligible sites, and copies of updated AHRS entries for submission to the Alaska SHPO*** . USARAK must obtain Alaska SHPO concurrence with determinations of eligibility.

5.3.3 Historic Properties

For evaluation of historic properties on Fort Richardson, National Register Criteria A and/or C are most commonly applied. Criterion A requires that a property be identified with events of historical importance on a local, State, or national level. In the case of Fort Richardson, the historical association of architectural properties is primarily with World War II and the Cold War. Criterion C requires that a property be significant on the basis of design or construction, usually by embodying a particular type or design.

Evaluations also consider a property's integrity with regard to its period of significance. That is, evaluations must determine if a property's current condition is relatively consistent with the design and functional elements it possessed during its period of significance. For historic properties on Fort Richardson, the following may be considered:

- Does the property retain integrity of location and architectural elements that identify it as a certain type of structure or building?
- Have there been any additions or alterations to the interior or exterior since the primary period of significance? If so, are the additions compatible with the original facility in materials, details, and scale, or has there been wide-scale removal of distinctive features?

Once significance and integrity have been assessed, a determination is made of the property's eligibility for the National Register. USARAK must obtain Alaska SHPO concurrence with determinations of eligibility.

5.3.4 Historic Properties Evaluation Schedule

All historic properties inventoried on Fort Richardson have also been evaluated for National Register eligibility. During 2002-2006 further evaluation of historic properties will occur as additional properties are inventoried. Inventory of Fort Richardson's 46 properties 50 years of age or older is scheduled for 2002.

5.3.5 Nomination of Eligible Resources to the National Register of Historic Places

Once determined eligible, cultural resources may be nominated to the National Register of Historic Places. In accordance with AR 200-4, *Cultural Resources Management*, nominations will not be high priority within the cultural resources program. Rather, funds will be primarily devoted to identification, evaluation, and management of resources. Only those properties that will be actively managed by USARAK *as sites of interest open to the public* should be formally nominated to the National Register.

The National Register, administered by the National Park Service (NPS), is the official Federal list of cultural resources significant in American culture and history. Resources may be listed on the National Register as districts, buildings, structures, sites, or objects. Nominations to have a cultural resource included on the list are submitted to the "Keeper" of the National Register on a registration form (NPS Form 10-900), available from the Alaska SHPO.

Per AR 200-4, if USARAK determines that nomination of a property on Fort Richardson to the National Register is appropriate, USARAK will provide copies of the nomination to USARPAC and the Army Environmental Center (AEC) for review and comment. USARAK will complete the nomination packet and submit it to the Alaska SHPO for a 30-day review period. USARAK will incorporate comments received and submit a final nomination packet to the Alaska SHPO for signature. The Alaska SHPO will return the nomination packet to Fort Richardson for the Post Commander's signature. The completed and signed nomination packet will be forwarded through Command channels to the Army Fiscal Property Officer who will sign and submit the nomination packet to the Keeper of the National Register.

Responsibilities of parties involved in the nomination process are outlined in greater detail in Section 3-3 of AR 200-4. Regardless of whether a resource is accepted for inclusion, ***for the purposes of management there is no distinction between cultural resources that have been determined National Register-eligible and those that are eventually listed***.

5.4 Preservation and Mitigation

Cultural resources that have been evaluated and determined eligible for the National Register, or those needing further evaluation, require management in the form of protection or mitigation. When it is determined that a proposed undertaking will have an *adverse effect* on one of these resources, USARAK will initiate consultation with the Alaska SHPO and the Advisory Council as described in Section 6.1. ***Cultural resources which have been determined of no significance, and therefore ineligible for the National Register, require no further management and may be subjected to activities that will result in negative impacts***.

The Preservation/Mitigation stage of cultural resources management is the most intensive because it requires managers to determine how proposed activities, or undertakings, may affect National Register-eligible cultural resources. An undertaking is defined as any sanctioned project or mission activity occurring on the installation. If an undertaking can affect cultural resources, managers must then determine if it could result in negative impacts. This process is referred to as a *Determination of Effect* and is made in consultation with the Alaska SHPO. Finally, a strategy must be devised to avoid or mitigate negative effects to cultural resources.

This chapter addresses the aforementioned processes with regard to USARAK's military mission on Fort Richardson and management structure, *i.e.* staffing, chain of command, etc. It identifies undertakings particular to Fort Richardson that are likely to negatively affect cultural resources and outlines treatment options. Mitigation plans for specific resources are also included.

5.4.1 Determination of Effect

Determinations of effect are made to protect cultural resources against potentially detrimental activities undertaken or sanctioned by the government. Potentially adverse activities on Fort Richardson are associated with programs identified in Section 5.1. The appropriate management option depends upon the specific effect that an activity has on significant cultural resources.

The recently revised implementing regulation for Section 106 of the NHPA, 36 CFR 800, offers a number of standards for determining the effect of an undertaking on a historic property. The first step is to determine if there is potential for the undertaking to affect historic properties. If it is found that there are no historic properties present or there are historic properties present but the activity will have no effect upon them, then the Alaska SHPO will be notified with summary documentation (see below). *Note: If the undertaking being considered may affect Native Alaskan sacred sites, burial sites, or other archeological sites or collections containing objects of Native Alaskan cultural patrimony, then representatives of Native Alaskan entities (see Section 5.5.3) will be involved in this process in addition to the Alaska SHPO.*

If it is determined that an undertaking may affect a historic property, criteria are referred to in order to establish the potential for negative or adverse effects. Criteria of "adverse effect" are as follows (36 CFR 800.5):

36 CFR 800.5
(1) Criteria of adverse effect: An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

(2) Examples of adverse effects: Adverse effects on historic properties include, but are not limited to:
- *(i) Physical destruction of or damage to all or part of the property;*
- *(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;*
- *(iii) Removal of the property from its historic location;*
- *(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
- *(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*
- *(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration*

are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Consideration of the above criteria may result in three types of determinations:

1. **No Historic Properties Affected:** This determination is made when the project will have no foreseeable effects on historic properties. A "no historic properties" requires submission of the following summary documentation to the Alaska SHPO and other consulting parties (36 CFR §800.11(d)):
   (1) a description of the activity and its area of potential effects (including photographs, maps drawings, as necessary);
   (2) a description of steps taken to identify historic properties; and
   (3) the basis for determining that no historic properties are present or affected.

   If the Alaska SHPO and other consulting parties do not respond or express concerns within 15 days, then the undertaking may proceed.
2. **No Adverse Effect:** This determination is made when there may an effect, but the effect will not be harmful to those characteristics that qualify the property for inclusion in the National Register. USARAK will seek concurrence from the Alaska SHPO and other consulting parties while submitting the following documentation (36 CFR §800.11(e)):
   (1) a description of the activity and its area of potential effects (including photographs, maps drawings, as necessary);
   (2) a description of steps taken to identify historic properties;
   (3) a description of the affected historic property (including information on the characteristics that qualify the property for inclusion in the National Register);
   (4) a description of the effects of the activity on the property;
   (5) an explanation of why the criteria of adverse effect were found inapplicable; and
   (6) copies or summaries of any view provided by consulting parties or the public.
3. **Adverse Effect**: This determination is made when there may be an effect, and that effect could diminish the integrity of the characteristics that qualify the property for the National Register. Upon a finding of "adverse effect" USARAK will initiate formal consultation with the Alaska SHPO and other interested parties as discussed in Section 6.1.

The Alaska SHPO and other consulting parties have a 30-day period to review determinations of "no adverse effect" or "adverse effect". If the Alaska SHPO or other consulting party disagrees with determinations made by USARAK within 30 days, USARAK may then either consult with the party(ies) to resolve the disagreement or request that the Advisory Council (Section 5.5.2) review the determination. USARAK will provide the Advisory Council with copies of all documentation submitted to the Alaska SHPO and other consulting parties. The Advisory Council has a 15-day period to respond. The Advisory Council will determine if the Criteria of Adverse Effect have been properly applied by USARAK and will either concur with or overrule the determination. If the Advisory Council does not respond within 15 days, then USARAK may assume concurrence and proceed accordingly (36 CFR 800.5 (c)(iii)).

5.4.2 Fort Richardson Cultural Resources Review

Review of proposed undertakings on Fort Richardson for effects to cultural resources is made by the Environmental Scientist, Natural Resources Branch, who is Fort Richardson's CRM as defined in AR 200-4. The CRM is responsible for making determinations of effect and coordinating with the Alaska SHPO . ***Protection and mitigation of cultural resources on Fort Richardson is entirely dependent upon the effectiveness of this internal review process***.

Determinations of effect per Section 106 are made in conjunction with standard review procedures for NEPA. The CRM is also Fort Richardson's NEPA Coordinator. NEPA is well integrated into the management procedures of Fort Richardson. Work orders, training schedules, permits... in other words, all proposed undertakings with potential for environmental impact... are submitted to the Environmental Division to be staffed through the CRM. At the same time that environmental effects are evaluated, potential impacts to National Register-eligible or potentially eligible resources are also considered. The CRM then coordinates with the Alaska SHPO as descried in Section 5.4.1.

However, review in conjunction with NEPA may not be adequate for all undertakings that can impact cultural resources. For instance, while the review process described above may effectively address ground disturbance, it does not provide for consideration of facilities maintenance or other undertakings with no apparent environmental consequences. In particular, it is not sufficient for review of effects to Fort Richardson historic properties.

To address this deficiency, Real Property will coordinate directly with the CRM with regard to management of historic properties. Beginning in 2002, all repair and other projects planned for historic properties will be staffed through the CRM for review. Historic properties requiring coordination consist of the Nike Site Summit Historic District (Section 4.2.3.1), Monument Corner (Section 4.2.3.3), and properties 50 years of age or older (Section 4.2.4)[4].

5.4.3 Prehistoric/Archeological Resources

5.4.3.1 Types of Undertakings Likely to Affect Archeological Sites

The following undertakings associated with the USARAK military mission and supporting functions are those most likely to result in effects to archeological sites.

- **Excavation**: Excavation has potential to destroy archeological sites. Excavation is prohibited on Fort Richardson unless authorized by Range Control and the Environmental Division. Common training activities requiring excavation include construction of fox-holes, tank traps, hull down positions, barriers, and explosive excavations. Training of engineering units on Fort Richardson may involve excavation using heaving equipment. Excavation also occurs as part of the facilities maintenance mission of Public Works.
- **Off-Road Maneuver**: Vehicle (wheeled and track) operation occurring off-road has potential to disturb sites by creating ruts, disturbing soil, and promoting erosion. Units training on Fort Richardson are encouraged to use established roads and trails, and off-road maneuver is restricted

[4]Review will not include properties on Camp Carroll.

by Range Control. The potential for ground disturbance from off-road maneuver is directly related to environmental and climatic factors. During winter, when the ground is frozen and usually covered in snow, there is little potential for disturbance, and off-road maneuver is permitted. During breakup (usually 1 April through 15 May) off-road maneuver is prohibited. During summer months, off-road maneuver is permitted except in designated protection areas, including creek bottoms, marshes, and tundra areas. A list of areas closed during summer is posted at Range Control (USARAK Regulation 350-2, *Range Regulation*, 1 January 1995). Range Control also minimizes disturbance from off-road maneuver by scheduling training activities to avoid over-use of training areas.

- **Tree/Vegetation Removal**: The removal of trees and other vegetation has potential to disrupt sites by overturning the soil. Destruction of trees and brush is prohibited unless required as part of training exercises (USARAK Regulation 350-2). Vegetation removal may be conducted by the Environmental Division for wildlife habitat management.
- **Construction**: In the event of changes to the USARAK military mission of Fort Richardson, new facilities and construction may be necessary. The excavation of foundations for buildings and utility lines can disturb or destroy archeological sites. Large construction vehicles can sink into soft soil and cause additional damage.
- **Vandalism**: Although not resulting from federal undertakings, vandalism of archeological sites can lead to loss of contextual integrity. Vandalism of sites on federally-owned land is a violation of the Archeological Resources Protection Act (ARPA) of 1971. Individuals who loot, disturb, or damage sites will be criminally prosecuted. Prosecution can result in heavy fines, imprisonment, and the loss of equipment used during such activities.
- **Erosion**: Erosion can lead to exposure and eventual dispersion of archeological sites. Erosion on Fort Richardson is associated both with natural forces and military undertakings.

5.4.3.2 Preservation and Mitigation Options

There are two general management options for archeological sites that will be impacted by proposed undertakings: preservation and mitigation. Preservation may be achieved indirectly through avoidance or more actively through physical protection. Mitigation procedures for archeological sites consist of data recovery and documentation prior to site destruction.

- **Avoidance**: In many instances, projects proposed for areas containing archeological sites eligible or potentially eligible for the National Register can be changed to avoid impacts. Avoidance is most easily arranged during planning stages when an area is being chosen for a project. Siting of projects in areas not containing significant resources can often be achieved with little adjustment or delay in the planning process. Even large-scale projects, such as building and road construction, can often be planned to avoid archaeologically sensitive areas.
- **Protection**: Sometimes undertakings cannot be planned to avoid areas containing significant archeological sites. In these instances, it is often possible to protect sites from adverse impact by physically placing them off-limits and erecting barriers, markers, signs, or fencing. Physical obstructions, combined with verbal instruction and/or special contractual obligations, are usually sufficient to protect sites from activities and inadvertent damage. The marking-off of areas, however, has the disadvantage of alerting the public to the presence of significant resources.

  In cases involving large sites or sites containing a number of artifact assemblages, it may be possible to protect only a portion of the site. The area chosen for protection must either be a “valid

sample" representative of the site or a definable area upon which the site's significance rests. Given these conditions, a portion of the site may be placed "off-limits."

Physical protection of a site requires periodic monitoring to assess the effectiveness of implementation. If it is suspected that written or verbal instruction is being ignored or that markers or barriers placed around the site are insufficient, other strategies may be necessary. Due to intensive management required and the conspicuous identification of sensitive resources, this is not a preferred management option.

When protection in the form of an "off-limits" designation for a site is not possible, another form of physical protection may be implemented in special instances. A layer of sterile soil not containing archeological remains can be placed on top of the site as a buffer between the site and the activity. Although access to the site is lost, its contents are sealed for examination at a later date.

- **Data Recovery**: Mitigation in the form of data recovery is implemented as a last resort when a site, or a portion of a site, cannot be avoided or physically protected from undertakings. Data recovery consists of excavation and documentation. Requirements for documentation are set forth in NPS's *Recovery of Scientific, Prehistoric, Historic, and Archeological Data: Methods, Standards, and Reporting Requirements* (1977) and the *Secretary of the Interior's Standards and Guidelines: Archeology and Historic Preservation* (48 FR 44716, 1983).

  Excavation must be conducted by a professional archeologist who has required academic qualifications and preferably has regional experience. The ARPA of 1971 details an additional three criteria for excavation:

  - data recovery must seek to further archeological knowledge in the public interest;
  - resources which are excavated will remain the property of the United States, and such resources and copies of associated documentation will receive curation at an adequate facility; and
  - activity associated with excavation must be consistent with other management plans (for instance, natural resources) applicable to the area concerned.

  Artifacts recovered during excavation must be curated in accordance with standards established by the Secretary of the Interior, as discussed in Section 5.4.3.4.

5.4.3.3 Preservation/Mitigation Plan

At present, no archeological sites on Fort Richardson require management. In the event that National Register-eligible sites are discovered, avoidance will be the management option of choice.

Two archeologically sensitive areas on Fort Richardson, however, require management, as they probably contain archeological sites potentially eligible for the National Register. These areas are described below.

5.4.3.3.1 Ship Creek Homesites

This archeologically sensitive area (Map F) occurs just east of the new golf course. The area extends from the bridge crossing Ship Creek upstream (east) along the southern bank of the creek approximately one third

of a mile to a former dam (used as a gaging station). From the southern bank of Ship Creek the area extends south to an east-west road. The area contains at least three potential archeological sites (*i.e.* 1930s-era homesites) and should be protected from ground disturbing activities. The area has limited potential to be impacted by the military mission and is not in a Fort Richardson training area.

5.4.3.3.2 School Fish Camp Site

This archeologically sensitive area (Map G) is located on the Knik Arm shoreline approximately one half mile east of Point Whitney in Training Area 1C. It contains the remains of a fish camp used by the Eklutna Vocational School, which operated from 1924 to 1946. Further description of the site is provided in Section 4.1.4.4. This area should be protected from ground disturbing activities until an archeological inventory can be conducted.

5.4.3.4 Curation Plan

USARAK is responsible for curating archeological artifacts discovered as a result of archeological inventories or other undertakings on Fort Richardson. *Curation of Federally-owned Archeological Resources* (36 CFR 79) and *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716) establish four general criteria for federal curation of archeological artifacts or other collections, as defined in 36 CFR 79.4(a)).

1. Curation facilities must have adequate space, facilities, and professional personnel.
2. Archeological specimens must be maintained so that their information values are not lost through deterioration, and records must be maintained to a professional archival standard.
3. Curated collections must be accessible to qualified researchers within a reasonable time of having been requested.
4. Finally, collections must be available for interpretive purposes, subject to reasonable security precautions.

AR 200-4 discourages installations from establishing curation facilities and recommends that archeological collections be maintained by outside State or federal agencies, such as universities, through cooperative agreements.

No artifacts or other collections are curated by USARAK. In the event that artifacts are discovered on Fort Richardson during 2002-2006, collections will be curated in accordance with 36 CFR 79 (Appendix A).

In addition, federal records or documents that are deemed to have historical value, such as the Site Summit operating manual, will be submitted to the National Archives, Pacific Alaska Region in accordance with 36 CFR 1228, *Disposition of Federal Records*. The point of contact at the Alaska regional office is:

Regional Facility Director
National Archives and Records Administration
Pacific Alaska Region
654 West Third Avenue
Anchorage, AK 99501-2145
(907) 271-2443

5.4.4 Historic Resources

5.4.4.1 Types of Undertakings Likely to Affect Historic Properties

The following undertakings associated with the USARAK military mission and supporting functions are those most likely to result in effects to historic resources on Fort Richardson.

- **Demolition**: Demolition is the most obvious threat to historic properties and results in total loss of the resource. A historic property should never be inadvertently destroyed. However, even if a property is determined eligible or listed in the National Register, it can be demolished if incompatible with the military mission. Procedures for demolition are established by the Advisory Council and involve consultation with the Alaska SHPO. An SOP for demolition is provided in Section 6.4. Procedures ensure that historic resources are given due consideration before proposed demolition.
- **Maintenance and Renovation**: Although maintenance of a property is necessary to prevent deterioration, maintenance activities can destroy or alter features of a property. For instance, replacement of original windows or doors with new ones of a different type can entirely change the character of a building. Renovation of a historic property can lead to removal of characteristics that gave it significance and result in the partial or complete loss of architectural integrity. Maintenance of facilities on Fort Richardson is the responsibility of Public Works.
- **No Action**: Although appropriate for most archeological sites, avoidance and neglect of historic properties can result in deterioration. Forces such as wind, rain, snow, and structural pests take a toll on properties and, if not combated, can eventually lead to loss of integrity.
- **Vandalism**: Although not resulting from military undertakings, vandalism is a potential source of negative impacts to historic properties given USARAK's policy of public access at Fort Richardson. For instance, vandalism has been reported at Nike Site Summit Historic District.

5.4.4.2 Preservation and Mitigation Options

When it is determined that a proposed undertaking will impact an historic property, measures can be taken to either mitigate or preserve the property. The most extreme mitigation option for a historic property consists of documentation of significant features before they are destroyed or compromised. However, most treatment options result in preservation, or protection, of a resource's significant features and characteristics. The Secretary of the Interior has outlined several treatments for protection (48 FR 44716):

(1) **Rehabilitation**: The act of returning a property to a state of utility while maintaining its historic integrity.

(2) **Restoration**: The act of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time.

(3) **Preservation**: The act of applying measures to sustain existing form and integrity.

(4) **Stabilization**: The act of applying measures to re-establish a weather-resistant enclosure and the structural stability of a resource.

(5) **Mothballing**: The act of removing a resource from active use and protecting it from deterioration.

(6) **Maintenance**: The act of preventing deterioration through regular treatment.

(7) **Repair**: The act of fixing an element of the resource that has deteriorated or is broken.

For the purpose of managing Fort Richardson's historic properties, treatments described above and mitigation can be narrowed to three broad classes.

- **Restoration**: The most complete form of preservation is restoration of a property to its original condition at the time when it achieved significance. Restoration involves the repair of original features and use of materials consistent with original design and function. Restoration can be expensive and is typically used for especially significant structures of public interest and appeal. Restoration is not a preferred management option on Fort Richardson.
- **Repair, Maintenance, and Mothballing**: Identified as a potential source of adverse effects, maintenance and repair of historic resources can also be a tool for preservation if done in accordance with the *Secretary of the Interior's Standards for Rehabilitation* (36 CFR 67) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR 68). These standards are provided in appendices B and C respectively. Activities such as maintenance, repair, stabilization, and rehabilitation are necessary to counteract deterioration and to allow the resource to adapt to changes in use. For an historic property no longer or rarely in use, mothballing may be combined with maintenance to preserve the resource. Repair and maintenance is the preferred management option for historic properties on Fort Richardson.
- **Documentation**: In instances where protection of an historic property is not feasible, documentation may be implemented as a mitigation procedure following consultation with the Alaska SHPO and the National Park Service (Section 6.3). Documentation of historic properties is performed so that information will not be lost as a result of proposed alteration or demolition. Documentation could be as extensive as measured drawings, large-format photographs, and written descriptions for submission to the Historic American Building Survey (HABS) (Section 5.2.2.2). Minimum standards are defined in the *Secretary of the Interior's Standards and Guidelines: Archeology and Historic Preservation* (48 FR 44716-42). Records should adequately illustrate and explain the significance of the resource and be presented in a standardized, legible format.

5.4.4.3 Preservation and Mitigation Plans

Plans for the management of Fort Richardson historic properties are provided below. These address potential risks from undertakings over the next five years.

5.4.4.3.1 Nike Site Summit Historic District

Nike Site Summit Historic District is the most significant Cold War property on Fort Richardson; it is also the historic property at greatest risk from adverse impacts. The district has been abandoned since 1979 when Nike Hercules missile operations ceased in Alaska. Although a few of the buildings continue to be maintained as communications facilities, most of the properties have not been maintained for over 20 years and have been removed from Fort Richardson's Real Property inventory.

Nevertheless, Site Summit continues to play a role in the training of USARAK forces. Range Control schedules training at the site approximately 20 times a year. It is used for mountain, dog, and critical assault training. Critical assault training is the most intensive and involves access to the interior of many of

the properties. Site Summit is also within the firing fan of the Grezelka Range, a small arms range complex used approximately 150 days a year (Alaska State Historic Preservation Office, 1997b: 7).

In addition to training uses, five civilian entities have leases to use Site Summit for communications. With the exception of Enstar Natural Gas Company, all leases are with State or federal agencies. The leases are for placement of microwave dishes and antennas at the High Power Acquisition Radar Building (ANC-799) (Alaska State Historic Preservation Office, 1997b: 8).

In 1997 USARAK received a Legacy grant in 1997 to have a feasibility study performed for Nike Site Summit Historic District. The study, conducted by the Alaska SHPO , included a property condition assessment and an analysis of management options for the district (Alaska State Historic Preservation Office, 1997b).

Because Site Summit has recently been listed on the National Register of Historic Places, the long-standing management policy of no action (*i.e.* no maintenance) is no longer viable as it exposes the district to adverse impacts, including the following:

- ***Elements***: Due to lack of maintenance, many of the district's properties are no longer weatherproof, and exposure to elements (*i.e.* wind, rain, and snow) is contributing to deterioration.
- ***Vegetation***: Vegetation, particularly willows, is encroaching upon Site Summit and threatens the structural integrity of properties (Alaska State Historic Preservation Office, 1997b: 39).
- ***Vandalism***: Many district properties, particularly at the Launch Area, display graffiti and other signs of vandalism. The deterioration of fencing around the Launch Area has contributed to the problem by allowing public access (Alaska State Historic Preservation Office, 1997b: 39).

The property condition assessment identified a number of immediate problems that should be addressed. The roof of the Battery Control Building (ANC-792) had failed in a number of places. Emergency stabilization of the roof was accomplished in 2001. Although Site Summit has not been managed for almost two decades, the electrical system remains active, posing a danger to both military personnel and the public (*i.e.* trespassers). The site, particularly the Battery Control Area, is littered with debris that should be removed. Also, regardless of the management option chosen for the district, Site Summit should be secured, and perimeter fencing should be replaced to discourage trespassing (Alaska State Historic Preservation Office, 1997b: 39).

The Alaska SHPO examined the following five management options for Site Summit.

- ***Option 1: No Action*** - This option would continue the policy of no active management at Site Summit. This option has been identified as unacceptable and in non-compliance with Army policy (Alaska State Historic Preservation Office, 1997b: 27-8).
- ***Option 2: Demolition and Cleanup*** - Real Property, Public Works has proposed Site Summit for demolition under the Facilities Reduction Program; a disposal plan was approved for Site Summit on October 16, 1996. The cost of disposal, including asbestos abatement, was estimated at $3,000,000 (Alaska State Historic Preservation Office, 1997b: 28). This option would require Section 106 consultation with the Alaska SHPO and the Advisory Council and would likely result in mitigative documentation (Section 5.4.4.2), the cost of which has been estimated at $1,000,000 and included in the disposal estimate. The Alaska SHPO opposes this option in light of the State of Alaska's expressed interest in use of Site Summit as an historic interpretive site and has indicated

that demolition is also not favored by Range Control (Alaska State Historic Preservation Office, 1997b: 28-30).

- ***Option 3: Non-Military Management for Public Use*** - This option calls for the outgranting of the property to a second party to take over management responsibilities. The property would be managed as a historic site for public interpretation. The property would remain Army property; responsibilities for managing and financing the site would be passed to the outside agency (Alaska State Historic Preservation Office, 1997b: 30-31). This is the option favored by the Alaska SHPO , as it provides for preservation of Site Summit while limiting Army liabilities. It is described in greater detail in Section 5.4.4.3.1.1.
- ***Option 4: Military Management for Public Use*** - This option calls for the military to retain management responsibility for Site Summit and to open the property as an interpretive site to the public. This option would require staffing and budget for a museum at the site in addition to repair costs (Alaska State Historic Preservation Office, 1997b: 31-2). It has been identified as cost prohibitive for USARAK.
- ***Option 5: Surplus the Property with Historic Preservation Covenants Attached*** - This option calls for the property to be surplused to the State of Alaska and Municipality of Anchorage in accordance with the North Anchorage Land Agreement signed by the State, the Municipality of Anchorage, and Eklutna, Incorporated. A historic preservation covenant would direct the agency receiving the property to manage Site Summit in accordance with the *Secretary of the Interior's Standards for Rehabilitation* (36 CFR 67) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR 68). This option would relieve USARAK from any liability associated with Site Summit, but USARAK would relinquish access for training and closure of the site for range firing fans. Due to these training impacts, this option is not viable.

Much of the Alaska SHPO's feasibility study focused on Option 3. The Alaska SHPO provided a detailed analysis of the benefits and liabilities of non-military management. This management option is, therefore, elaborated upon below.

5.4.4.3.1.1 Alaska SHPO Preferred Management Option: Non-Military Management for Public Use

Under the management scenario recommended by the Alaska SHPO, Site Summit would be out-granted or leased to an outside organization that would maintain the property as a museum or site of interest open to the public. Site Summit would remain Army property. Income from the grant or lease would be used to maintain the property. Site Summit likely would be leased to the Municipality of Anchorage, the State of Alaska, or a private entity formed expressly for management of the property. The municipality of Anchorage entity that could manage Site Summit includes Anchorage Historic Properties, Incorporated, the Anchorage Museum of History and Art, and the Alaska Aviation Heritage Museum. If the site were leased to the State of Alaska, it would likely be turned over to the Division of Parks and Outdoor Recreation that would either manage the site directly, place management under a concessionaire, or form a partnership with other entities (Alaska State Historic Preservation Office, 1997b: 30).

The Alaska SHPO study looked to the Titan Missile Museum in Green Valley, Arizona as an example where out-leasing worked with a Cold War property. The Titan missile site is owned by the U.S. Air Force but is leased to a local government that, in turn, subleases it to a local museum to manage (Alaska State Historic Preservation Office, 1997b: 30).

Very few Cold War properties in the United States are open for public interpretation. The only other Nike missile site open to the public is Nike Missile Site SF-88L outside San Francisco, California. Unlike, Site Summit, however, it is incomplete and does not include the Battery Control Area and important radar facilities (Alaska State Historic Preservation Office, 1997b: 1-2).

The Alaska SHPO considered not only Site Summit's value as a unique Cold War property but also its potential to combine Cold War heritage education with unique recreational opportunities. Site Summit would provide visitors with a unique panorama of Alaska's natural resources. Spectacular vistas are found in all directions and include mountain peaks and glaciers, Cook Inlet, and the Alaska Range with Mount McKinley. Site Summit may also provide views of wildlife, such as moose, golden eagles, coyotes, wolves, Dall sheep, black bears, and brown bears (Alaska State Historic Preservation Office, 1997b: 18).

Due to its proximity to Anchorage, an interpretive site at Site Summit could contribute to the overall tourism potential of the Anchorage area by providing another day-tour option. According to the Division of Tourism, the number of visitors to Alaska during 1992 and 1994 interested in cultural attractions increased by 27 percent. A large percentage of visitors to Alaska come for recreational purposes. In 1993 visitors to the Anchorage area spent $16 million on tours and recreation. Half of them took day tours. The itinerary of most of the six Anchorage tour operators includes downtown Anchorage, Midtown, and the Turnagain Arm. Site Summit would be an attractive out-of-town option (Alaska State Historic Preservation Office, 1997b: 9-11)

A liability of this management option, however, is that USARAK would be required to repair and renovate Site Summit to a level suitable for public access before leasing it to an outside agency. This would be costly. Asbestos remediation alone would cost an estimated $135,825.40. A cost estimate of $2,641,252, excluding asbestos remediation, has been provided for treatment of building exteriors and interiors. The Alaska SHPO has classified repairs into two categories based upon need.

- ***Critical*** repairs are those needed to stabilized buildings/structures and allow general public access to the Battery Control and Launch areas.
- ***Serious*** repairs are those not critical to the life of properties but required for public access to the interiors of properties.

Results of the cost estimate are summarized in the following table. The Alaska SHPO's detailed estimate, indicating costs per individual tasks, is provided in Appendix D.

Management Option 3: Non-Military Management for Public Use

AHRS Number	Property^	Critical	Serious	Total
	Site Summit (General)	$20,238.00	$25,293.00	$45,531.00
ANC-792	Battery Control Building	$287,334.00	$1,498,490.00	$1,785,824.00
ANC-793	Target Tracking Radar Shelter	$140.00	$24,015.00	$24,155.00
ANC-794	Missile Tracking Radar Shelter	$140.00	$24,015.00	$24,155.00
ANC-795	Target Tracking Radar Shelter	$140.00	$3,985.00	$4,125.00

AHRS Number	Property^	Critical	Serious	Total
ANC-800	High Explosives Magazine	$208.00	$0.00	$208.00
ANC-801	Guided Missile Magazine	$208.00	$0.00	$208.00
ANC-802	Sentry Station 1	$2,819.00	$728.00	$3,547.00
ANC-803	Sentry Station 2	$2,403.00	$2,473.00	$4,876.00
ANC-804	Guided Missile Maintenance Facility	$2,008.00	$0.00	$2,008.00
ANC-805	Vehicle Maintenance Shop	$6,699.00	$14,013.00	$20,712.00
ANC-806	Sentry Station 3	$4,081.00	$3,830.00	$7,911.00
ANC-807	Launching Control Building	$8,513.00	$245,680.00	$254,193.00
ANC-810	Missile Launch and Storage #1	$2,142.00	$227,246.00	$229,388.00
ANC-811 / ANC-812	Electrical Substations D	$2,110.00	$0.00	$2,110.00
ANC-813	Fuse and Detonator Magazine	$0.00	$195.00	$195.00
ANC-814	Missile Launch and Storage #2	$2,142.00	$227,246.00	$229,388.00
ANC-815	Missile Warhead Magazine	$1,835.00	$883.00	$2,718.00
		TOTAL		**$2,641,252.00**

*Source: Alaska State Historic Preservation Office, 1997b
^Those properties not listed in the table do not require treatment.

Another potential problem with Option 3 is that its effects on USARAK training operations are unknown. For instance, public access at Site Summit could conflict with firing at Grezelka Range up to 40 percent of the time. Also, it is unclear whether training would continue at the site and, if so, what training restrictions would be imposed. Non-military management would place additional constraints on the operation of Range Control. Any decision on transfer of management responsibilities to an outside agency will also need to include the Bureau of Land Management.

5.4.4.3.1.2 Alternative Management Option: Repair and Mothballing

One management option not considered by the Alaska SHPO is the minimal level of management required to avoid adverse effects to Site Summit and remain in compliance with federal legislation and AR 200-4. Under this management option, Site Summit would remain under Army ownership and management. It would require USARAK to conduct repairs necessary to stabilize and protect Site Summit properties. Repairs would be conducted in accordance with the *Secretary of the Interior's Standards for Rehabilitation* (Appendix B) and 36 CFR 68, *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Appendix C). Thereafter, Site Summit would be "mothballed" with routine maintenance scheduled annually, or as needed. Training at Site Summit could continue at present levels,

and management of the site would not interfere with operations of Grezelka Range. However, some training exercises have resulted in adversely effected the historical character of Site Summit. Therefore, training restrictions (*i.e.* no breaking of windows or doors) would be required to prevent property damage, and Section 106 compliance would be required for proposed training exercises. Site Summit would be available for limited public access as determined by Range Control.

One drawback to this management option is that Site Summit would be under-utilized in comparison with other options. Section 110 of the NHPA calls for historic properties to be used *to the maximum extent feasible* by federal agencies.

This option would, however, be the least costly (with the exception of Option 1: No Action). It would call for significant funding for essential repairs, an estimated $441,148.00, and minimal maintenance expenditures thereafter. The following table provides a cost estimate for initial repairs based upon an assessment by Fort Richardson's Public Works.

Alternative Management Option: Repair and Mothballing^

Treatment	Cost
Site Summit (General)	
Clean-up and vegetation removal	$6,000.00
Secure manholes and cable trays	$2,000.00
Paint radar shelters	$8,000.00
Remove glass block insulation from water storage tanks and paint	$9,000.00
Repair guard rails	$2,000.00
Install signs	$4,000.00
Repair fencing and replace gates	$14,500.00
ANC-792: Battery Control Building	
Repair exterior wall cover / remove and dispose transite	$40,000.00
Repair exterior windows	$37,000.00
Replace roof / repair framing	$251,000.00
Repair exterior doors	$5,000.00
ANC-793: Target Tracking Radar Shelter	
Repair exterior door	$200.00
Repair exterior wall cover	$13,000.00

Treatment	Cost
ANC-794: Missile Tracking Radar Shelter	
Repair exterior door	$200.00
Repair exterior wall cover	$13,000.00
ANC-795: Target Ranging Radar Shelter	
Repair interior door	$200.00
ANC-800: High Explosive Magazine	
Secure exterior door	$200.00
ANC-801: Missile Magazine	
Secure exterior door	$200.00
ANC-802: Sentry Station 1	
Reglaze windows	$2,100.00
Replace exterior door	$715.00
ANC-803: Sentry Station 2	
Reglaze windows	$1,700.00
Replace exterior door	$700.00
ANC-804: Missile Maintenance Facility	
Repair exterior siding	$1,300.00
Repair exterior doors	$700.00
ANC-805: Vehicle Maintenance and Storage Building	
Repair overhead doors	$6,000.00
Replace personnel doors	$1,200.00
ANC-806: Sentry Station 3	
Reglaze windows	$3,400.00
Replace exterior door	$700.00
ANC-807: Launch Control Building	
Reglaze windows	$1,900.00
Repair overhead doors	$5,000.00

Treatment	Cost
Replace personnel doors	$2,100.00
ANC-810: Missile Launch and Storage Building 1	
Repair overhead door	$1,600.00
Replace personnel door	$500.00
ANC-811: Electrical Substation D (1)	
Repair exterior siding	$100.00
Replace exterior door and frame	$800.00
ANC-812: Electrical Substation D (2)	
Replace exterior door	$1,100.00
Repair exterior siding	$133.00
ANC-814: Missile Launch and Storage Building 2	
Repair overhead door	$1,600.00
Replace personnel door	$500.00
ANC-815: Missile Warhead Magazine	
Replace exterior door	$1,800.00
TOTAL	**$441,148.00**

^Properties not listed in the table do not require treatment.

Due to limited funding for management of Site Summit, this option is preferred by USARAK. A significant challenge for management results from Site Summit's ambiguous property status. Site Summit has been abandoned and removed from Fort Richardson's Real Property. Therefore, management of the site is no longer included in the facilities maintenance budget of Public Works[5]. Funding for management of Site Summit will, therefore, need to come from the Environmental Division.

5.4.4.3.2 Fort Richardson National Cemetery (Veterans Administration Property)

Management of Fort Richardson National Cemetery, including cultural resources management, is the responsibility of the Veteran's Administration. USARAK does not conduct maintenance or other management activities on the property.

[5]In a strict sense, abandoned properties at Site Summit may therefore be considered ruins.

5.4.4.3.3 Monument Corner

Monument Corner (ANC-014) has very limited potential to be impacted by roads and grounds maintenance on Fort Richardson. The small, flat monument is covered by sod and is approximately 15 inches below the surface. Above the monument, the sod has been cut to conform to the stone to provide easy access.

Continuation of present grounds maintenance at the site will result in no negative effects to the monument. However, should landscaping or road construction become necessary, the monument should be moved.

5.4.4.3.4 Operating Manual, Alaska Tactical Facilities, Site Summit

The three-volume *Operating Manual, Alaska Tactical Facilities, Site Summit* will be submitted to the National Archives, Pacific Alaska Region, Anchorage in accordance with 36 CFR 1228, *Disposition of Federal Records*. Because the manual may provide information important to the understanding of every-day operations at Site Summit between 1959 and 1979, it should be considered in any management of Site Summit that involves public interpretation. Procedures for disposition of historic records are included in the curation plan outlined in Section 5.4.3.4.

5.5 Consultation

Consultation is the basis of the Section 106 compliance process for management of cultural resources on federal lands. Primary partners in consultation are the Alaska SHPO (Section 5.5.1), the Advisory Council on Historic Preservation (5.5.2), and Native Alaskan entities (Section 5.5.3). Consultation occurs as interagency correspondence for purposes of concurrence, typically with regard to cultural resources decisions and findings, and agreement for mitigation of cultural resources. The latter may take the form of official Memoranda of Agreement (MOA) or Programmatic Agreements (PA). The revised implementing regulations for Section 106 also provide for the use of the NEPA process in lieu of formal Section 106 consultation. The conditions under which NEPA may be used for Section 106 are outlined in 36 CFR 800.8(c).

5.5.1 Alaska State Historic Preservation Office

The point of contact for consultation with the Alaska SHPO is:

> Review and Compliance Program Manager
> Alaska Office of History and Archaeology
> 3601 C Street, Ste 1278
> Anchorage, AK 99503-5921
> (907) 269-8722 Email: OHA@Alaska.net

Consultation occurs with the Alaska SHPO throughout the management process. Coordination with the Alaska SHPO is a mandatory part of all stages of cultural resources management including, but not limited to:

- **inventory**, to concur with the design, accuracy, and sufficiency of a survey;

- **evaluation**, to concur with the determination of eligibility of cultural resources for the National Register;
- **nomination**, to provide technical assistance and concur with the adequacy of a nomination packet; and
- **determination of effect**, to concur with USARAK's finding of the effect of undertakings on cultural resources.

A more practical discussion of the integration of the Alaska SHPO coordination with these processes is provided in their respective sections: 4.3 Mapping, 5.2 Inventory, 5.3 Evaluation, 5.3.4 Nomination, and 5.4 Preservation/Mitigation.

Coordination is initiated by USARAK, and formal requests for concurrence (or other action) must be submitted along with supporting documentation. The Alaska SHPO has standards for documentation, photographs, and maps submitted to its office. Though all such standards are not reproduced in this ICRMP, they are generally included in the discussion of management procedures. Once an issue is submitted to the Alaska SHPO for concurrence, the Alaska SHPO generally must reply within 30 days. However, the precise period for reply is determined by the proposed effect of the undertaking and may not always be limited to 30 days. As all undertakings require a determination of effect, projects should be planned with consideration of this review period. If USARAK and the Alaska SHPO cannot reach a consensus, then the Advisory Council will provide mediation.

5.5.2 Advisory Council on Historic Preservation

The point of contact for consultation with the Advisory Council is:

Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue, Room 809
Washington, D.C. 20004
(202) 786-0505.

The ultimate goal of the Section 106 process is to afford the Advisory Council opportunity to comment on proposed undertakings. The revised implementing regulation for Section 106 of the NHPA significantly streamlined the Advisory Council's role in Section 106 consultation. While the Advisory Council will still be notified upon the initiation of consultation following a determination of "adverse effect", it will exercise greater deference to the federal agency (*i.e.* USARAK) and the SHPO in the consultation process. Specifically, the Advisory Council will no longer be required to review determinations of *no adverse effect* (Section 5.4.1) or routine agreement documents (Section 6.1) between consulting parties. The Advisory Council will focus its attention on those situations where its expertise and national perspective can enhance the consideration of historic preservation issues and will conduct oversight on a programmatic rather than case-by-case basis.

Nevertheless, the Advisory Council will continue to provide mediation in the Section 106 process if USARAK and the Alaska SHPO or other consulting parties cannot reach a consensus.

5.5.3 Native Alaskan Entities and Corporations

Consultation with Native Alaskan entities is an element of compliance with numerous aspects of cultural resources legislation. On April 29, 1994 the President released the *Memorandum: Government to Government Relations with Native American Tribal Governments*. The memorandum directed that consultation between the Executive Branch of the government, including the Department of Defense, and federally-recognized Indian tribes, including Native Alaskans, be conducted on a government-to-government basis. The memorandum signaled the growing importance of Native American relations in federal policy (National Defense Research Institute, 1996: ix). In 1998 federal policy toward consultation with Native Alaskan entities was further elaborated in Executive Order 13084, *Consultation and Coordination with Indian Tribal Governments*. Potential implications of consultation for USARAK over the next five years are outlined in this section.

The National Historic Preservation Act

The 1992 amendments to the NHPA and subsequent revisions to 36 CFR 800, the implementing regulations for Section 106, significantly altered the role of Native Alaskan entities in the Section 106 process. Recognizing that state agencies have no jurisdiction over tribal lands, tribes were given the authority to appoint a Tribal Historic Preservation Officer (THPO) to act in lieu of the SHPO for consultation regarding federal undertakings on tribal lands. ***As Fort Richardson does not occur on Native Alaskan property, this provision has no effect on the cultural resources management program.***

However, Native Alaskan entities were also recognized as primary partners in Section 106 consultation regarding undertakings off tribal lands affecting resources to which Indian tribes attach religious and cultural significance. For USARAK Native Alaskan entities will therefore act as primary partners in consultation regarding undertakings on Fort Richardson that may affect Native American sacred sites, burial sites, or other archeological sites or collections containing objects of Native American cultural patrimony.

The National American Graves Protection and Repatriation Act

The National American Graves Protection and Repatriation Act (NAGPRA) of 1990 requires consultation with interested Native American tribes, including Native Alaskan entities, for disposition of artifacts recovered from burial sites. The NAGPRA establishes Native American ownership of human remains and associated funerary objects and calls for the return of skeletal remains, funerary artifacts, and objects of cultural patrimony to appropriate Native American organizations upon request. No burials or sites containing object of cultural patrimony have been identified on Fort Richardson.

The American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1996, as amended, may also involve consultation with federally-recognized Native Alaskan entities with regard to access to Fort Richardson for religious purposes. To date, no traditional cultural properties or sacred sites have been identified on the post. During 2002-2006 USARAK will cooperate with Native representatives regarding identification of sites necessary for the exercise of traditional religion. If such sites are identified on Fort Richardson, USARAK will provide access in so far as it is consistent with the military mission.

Points of Contact

For the most part, Native Alaskans in the Fort Richardson area are descendants of the Athapaskan-speaking Denaina who occupied the Cook Inlet region at the time of European contact (Section 4.1.1.5). Federal policy with regard to Alaskan natives has resulted in a bewildering array of federally-recognized Native Alaskan entities. Native Alaskan organizations were not officially accorded federal recognition until 1993 when 223 Native villages and two Native regional organizations were added to the list of federally-recognized tribes. These entities were recognized as having *the same governmental status as other federally acknowledged Indian tribes by virtue of their status as Indian tribes with a government-to-government relationship with the United States* (National Defense Research Institute, 1996: 42).

Two federally recognized Denaina villages near Fort Richardson are USARAK's primary points of contact for Native Alaskan consultation.

Eklutna Native Village
26399 Eklutna Village Road
Chugiak, AK 99567
(907) 688-6020

Knik Village
Knik Tribal Council
P.O. Box 2130
Wasilla, AK 99687
(907) 373-7991

Eklutna Native Village is located at Eklutna, a community of 425 people at the mouth of the Eklutna River, 25 miles northeast of Anchorage. Just over 12 percent of the population reside at Eklutna Native Village and practice a subsistence lifestyle (Alaska Department of Community and Regional Affairs, 1998).

Knik is a Denaina village name meaning *fire*. The name was originally applied to several villages at the head of Cook Inlet. The primary village was listed as *Knik* in the 1880 U.S. Census and subsequently experienced growth during the 1898-1916 gold rush. The village is located on the west bank of the Knik Arm, approximately 17 miles northeast of Anchorage (Alaska Department of Community and Regional Affairs, 1998).

The Alaska Native Claims Settlement Act of 1971, which extinguished Alaska Native aboriginal claim to all but 44 million of Alaska's 375 million acres at a cost of $962.5 million, authorized Natives living in each village to organize a village business corporation and Natives living in each geographic region to organize a regional business corporation. Legal title to the 44 million acres and the $962.5 million-dollar settlement were then conveyed to the corporations. Twelve regional Native corporations and over 200 Native village corporations were created.

The regional Native corporation for the Fort Richardson area is:

Cook Inlet Region, Incorporated
P.O. Box 93330
Anchorage, AK 99509-3330

In addition, Knik Village and Eklutna Native Village also established village corporations, Knikatnu Incorporated and Eklutna Incorporated. These Native Alaskan corporations may also be points of contact for consultation. During 2002-2006 consultation will be initiated with regional Native Alaskan entities as required.

6.0 STANDARD OPERATING PROCEDURES

6.1 SOP: Section 106 Consultation

Section 106 of the NHPA is a federal review process designed to ensure that historic properties are considered during the planning and execution of federal undertakings. This process will be initiated early in the planning stages of a project. The following steps will be implemented to ensure compliance.

6.1.1 Who is Responsible for Section 106?

Meeting the requirements of Section 106 on Fort Richardson is the responsibility of the CRM. The CRM will ensure that proper consideration is given to cultural resources during the planning and execution of USARAK undertakings. The Fort Richardson CRM may be contacted at:

Director, Public Works
ATTN: APVR-RPW-EV (Russell Sackett)
Fort Richardson, AK 99505-650
(907) 384-3010

6.1.2 Who Participates in the Section 106 Process?

Participants in the process are the CRM, the Alaska SHPO, and, optionally, the Advisory Council. If the undertaking being considered may affect Native Alaskan traditional cultural properties, sacred sites, burial sites, or other archeological sites or collections containing objects of Native Alaskan cultural patrimony, then Native Alaskan entities (see Section 5.5.3) will be involved in consultation as primary parties. Other participants may include local governments, local historic preservation groups, and interested persons.

6.1.3 Procedures for Non-CRM Personnel

The major non-CRM participants in initiating compliance with Section 106 are USARAK personnel involved in planning projects on Fort Richardson. The CRM will determine whether Section 106 is applicable. If applicable, the CRM will initiate Section 106 consultation. Work on the proposed project will not begin until Section 106 compliance has been met. If the proposed activity does not require Section 106 review, the CRM will provide immediate clearance for the project.

6.1.4 Procedures for the CRM

Step 1: Identification of Cultural Resources

The CRM will determine whether there are any historic properties in the project's area of potential effect. Identification may be done by consulting existing inventories or may require a survey/inventory of the immediate area to identify unknown resources (see Section 5.2). If any previously unknown resources are located, a determination must be made of National Register eligibility as described in Section 5.3. Determinations of eligibility require Alaska SHPO concurrence. If the resource is determined to be ineligible for the National Register, then Section 106 obligations have been met, and the project may proceed. If the resource is determined to be eligible or potentially eligible, then the CRM will proceed to Step 2.

Step 2: Determination of Effect

The CRM will make a determination of effect for resources eligible for the National Register as described in Section 5.4.1. If a finding of *adverse effect* is made, then the CRM will proceed to Step 3. Procedures for findings of *no historic properties* and *no adverse effect* are detailed in Section 5.4.1.

Step 3: Formal Consultation

Once a project is determined to result in an *adverse effect* to a National Register-eligible resource, the CRM will initiate consultation with the Alaska SHPO (and Native Alaskan entities as appropriate). The CRM will provide the Alaska SHPO with the following materials:

- a cover letter,
- a description of the proposed undertaking, including applicable figures or maps if any,
- a description of relevant cultural resources investigations completed for the area,
- a description of the cultural resource(s) that will be affected, and
- an explanation of the determined adverse effects (Advisory Council on Historic Preservation, 1986).

The CRM will also notify the Advisory Council that consultation has begun; a form letter for notification is provided in Appendix D. If either party desires, the Advisory Council may enter the consultation process. Interested parties may also be invited to participate by either USARAK or the Alaska SHPO. These might include local government officials, local historic preservation groups, or those with academic or professional interests. Any party entering the process will receive a copy of materials submitted to the Alaska SHPO.

The purpose of consultation is to allow the Advisory Council, and other parties, opportunity to comment on the undertaking. Consultation usually results in agreement on procedures to avoid, reduce, or mitigate adverse effects. An agreement must take into account mission-related needs, management limitations of USARAK, and concerns of outside parties. If an undertaking cannot be modified to avoid adverse impacts, then measures will be agreed upon to reduce and/or compensate for negative impacts. Compensation is usually made via documentation and data recovery. However, other measures might be proposed that provide for partial protection of the cultural resource. Examples include:

- limiting the magnitude of the undertaking;
- modifying the undertaking through redesign, reorientation, or other changes;
- relocating the property; and
- providing for repair of damage (Advisory Council on Historic Preservation, 1986).

In most cases, agreement is reached.

Step 4, Alternative 1: Successful Consultation

The product of the successful consultation is usually a MOA that stipulates measures to be taken. Consultation can also result in a PA, typically used for potentially adverse effects that are recurring or widespread.

Per AR 200-4, draft MOAs and PAs, following review by the Alaska SHPO, will be staffed through USARPAC for a 45-day review period. When forwarded to USARPAC, the draft agreement will be accompanied by an installation-prepared Memorandum For Record containing the following:

- cost estimate and funding schedule to ensure that actions prescribed in the agreement document are programmed into the A-106 funding mechanism; and
- confirmation that installation offices have reviewed and concur with the document.

USARPAC comments will be incorporated into a final agreement document. The Post Commander will sign the final document, obtain the Alaska SHPO signature, and forward the agreement to the Advisory Council for signature (if applicable). If the Advisory Council participated in the consultation, the agreement document will be forwarded to the Advisory Council for signature. If the Advisory Council did not participate in the consultation process, it may wish to review the document. If requested, the CRM will forward the agreement document to the Advisory Council for a 30-day review period. The CRM will provide USARPAC with a copy of the final document signed by all participating parties. This concludes the Section 106 process.

Step 4, Alternative 2: Termination of Consultation

If parties cannot agree on a MOA or PA, consultation may be terminated at any time following initiation of consultation with the Alaska SHPO. If the consultation is terminated, the Advisory Council must be notified and allowed to comment. The Advisory Council will be provided with the following documentation:

- cover letter;
- copy of documentation submitted to the Alaska SHPO upon initiation of consultation,
- a description of alternatives or mitigation measures that USARAK plans to implement,
- a description of alternatives or mitigation measures rejected by USARAK,
- documentation of all consultation with the Alaska SHPO,
- a description of USARAK's efforts to consider views of other consulting parties,
- a schedule for the proposed undertaking, and
- copies of any written views received from the Alaska SHPO or other parties (Advisory Council on Historic Preservation, 1986: 40-1).

After receiving the documentation, the Advisory Council has 60 days to issue comments. The Advisory Council may also conduct an on-site inspection of the property(ies). USARAK will address the Advisory Council's comments and inform the Advisory Council of its decision. This concludes the Section 106 process.

6.2 SOP: Compliance with the Archeological Resources Protection Act of 1979

This SOP implements provisions of Public Law 96-95, the Archeological Resources Protection Act (ARPA), and 32 CFR 229 for Fort Richardson. Per ARPA, it is a federal offense to excavate, remove, damage, or otherwise deface archeological resources on federal lands. The sale, purchase, or transfer of

archeological artifacts obtained through illegal activity is also an offense. This SOP spells out procedures for enforcement of the ARPA and the issuance of permits for exceptions to restrictions on excavation.

6.2.1 Who is Responsible for ARPA Compliance?

The CRM will ensure that the Provost Marshal's Office (PMO) is aware of USARAK's responsibility for ARPA enforcement on Fort Richardson. ARPA enforcement will be the responsibility of PMO and Military Police/game wardens who patrol outside the cantonment area. Each year these personnel make approximately 200 contacts with recreational and other users on Fort Richardson training areas (Center for Environmental Management of Military Lands and Gene Stout & Associates, 1998a). The CRM is responsible for issuance of ARPA permits.

6.2.2 Who are the Participants in ARPA Compliance?

Primary participants in ARPA compliance are the CRM, PMO, the Federal Magistrate, and the U.S. Army Corps of Engineers.

6.2.3 Procedures

Permitting

Exceptions to ARPA require a federal permit. Under 32 CFR 226.6, any qualified person may apply for a permit to excavate or remove archeological remains from federal lands. The federal manager, in this case USARAK, has authority to issue permits for work on Fort Richardson. Permit applications should be submitted to the CRM for approval. The CRM will submit the approved application to the U.S. Army Corps of Engineers at the address below:

U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 898
Elmendorf AFB, AK 99506
(907) 753-2712

The Alaska SHPO will be informed upon issuance of permits. USARAK reserves the right to monitor work conducted under the permit.

Enforcement

An ARPA violation is a federal offense. If such violation occurs or is believed to have occurred, the PMO and the CRM will initiate an investigation. The CRM may opt to enlist the services of the BLM cultural resources staff or a contract archeologist to assist with the investigation. The PMO and the Federal Magistrate (Anchorage) will vigorously enforce the law when violations occur.

6.3 SOP: Economic Analysis of Historic Properties

This SOP outlines procedures for completion of an economic analysis on historic properties per AR 200-4. AR 200-4 requires that ICRMP's detail provisions for the conduct of an economic analysis on historic

properties that are being considered for demolition. Other procedures to be followed in the event of the proposed demolition of historic properties are detailed in Section 6.4.

6.3.1 Who is Responsible for Completion of Economic Analyses?

The Fort Richardson CRM is responsible for implementation of this SOP. The organization responsible for demolition of the property is also responsible for completion of the economic analysis.

6.3.2 Who are the Participants?

Participants are the organization proposing demolition (typically Public Works) and the CRM.

6.3.3 Procedures

The economic analysis should detail alternatives considered by USARAK for disposition of the historic property(ies). Army Pamphlet 200-4, a supporting document to AR 200-4, elaborates on AR 200-4 in calling for the Army to consider factors such as "maintenance costs, utility costs, replacement costs" in cost estimates. The economic analysis envisioned by AR 200-4 is not a decision document but rather a tool to assist the installation in making management decisions. Cost is only one factor informing the decision process, and the Army is by no means required to adopt the management alternative of least cost.

The economic analysis should, at a minimum, provide the following information on each property proposed for demolition:

- a property condition assessment,
- a description of management alternatives considered,
- cost estimates for each of the alternatives,
- a statement of USARAK's decision (*i.e.* preferred alternative) with regard to disposition of the property.

Alternatives considered should include demolition, no action, and options for adaptive re-use of the property.

6.4 SOP: Demolition of Historic Properties

Once a structure is determined eligible for and/or listed in the National Register, it can still be demolished if deemed necessary for the military mission, following due consultation. Procedures to be taken if demolition of historic properties is required within 2002-2006 are as follows:

1. Upon proposal of demolition of an historic property by Fort Richardson Real Property, USARAK will conduct an economic analysis (Section 6.3) of reuse alternatives.

2. If USARAK decides in favor of demolition, the CRM will make a determination of *adverse effect* and begin consultation with the Alaska SHPO as discussed in Section 6.1. In addition to the documentation indicated in Section 6.1, USARAK will also submit the economic analysis to the Alaska SHPO upon initiation of consultation.

3. The Advisory Council will be informed of the initiation of consultation, and relevant outside parties will be invited to join in the consultation process. Public notice will be given through NEPA channels.

4. Consulting parties will develop, as appropriate, an agreement document for mitigation of affected resources. Ideally, the document will be a MOA.

5. Consulting parties will determine requirements for documentation and/or other mitigation. Generally, a standard of HABS Level I or Level II (Section 5.2.2.2) will be adhered to for mitigation of historic properties.

6. USARAK will staff the resulting MOA, or other agreement document, through channels as discussed in Section 6.1 and AR 200-4.

7. Once the agreement document is signed, the Advisory Council will be allotted a 30-day review period for comment. This period is waived if the Council has already participated in the consultation process.

8. If at any time consultation is terminated and agreement cannot be reached, USARAK will proceed as discussed in Section 6.1.4.

6.5 SOP: Accidental Discovery of Archeological Sites or Burials

Although implementation of this ICRMP will facilitate inventory of archeological resources on Fort Richardson, the potential exists for accidental discovery of archeological sites, even in inventoried areas. Reconnaissance survey techniques, though effective, cannot locate every site. Additional sites may be deeply buried and therefore not accessible by shovel testing or lie amid dense vegetation or other obstructions. This SOP outlines procedures to be followed in case of accidental discovery.

6.5.1 Who is Responsible for Inadvertent Discoveries of Archeological Resources?

The Fort Richardson CRM is responsible for ensuring that accidental discoveries of archeological materials are managed properly. The CRM must ensure that personnel involved in undertakings on Fort Richardson are aware of procedures to be followed in the event of accidental discovery.

6.5.2 Who are the Participants?

When archeological materials are discovered during an undertaking, the participants are the personnel involved in the undertaking, the CRM, and the Alaska SHPO. The BLM and Native Alaskan entities may also be contacted.

6.5.3 Procedures

1. Upon discovery of archeological materials, personnel will report the finding of artifacts to the CRM at the Environmental Division and cease ground-disturbing operations in the area. The CRM may be contacted at:

Director, Public Works
ATTN: APVR-RPW-EV (Russell Sackett)
Fort Richardson, AK 99505-650
(907) 384-3010

2. The CRM will inspect the area but in most cases will not be able to assess whether the site reflects cultural or merely natural formations. If this occurs, the preferred alternative will be to move ground-disturbing operations to another location and include the area in future archeological inventory, as described in Sections 5.2.3.

3. If operations cannot be moved to avoid the site, USARAK will either consult with the BLM archeological staff and request a brief on-site visit or enlist the services of a contract archeologist. The BLM may be contacted at:

Donna Redding
Cultural Resources
Bureau of Land Management
6881 Abbot Loop Road
Anchorage, AK 99507
(907) 267-1341

Meanwhile, ground-disturbing activities will remain suspended. The Alaska SHPO will be notified. The consulting archeologist will determine if remains are archeological artifacts.

4. If the site is determined to be naturally occurring, then no further investigation is necessary, and operations will continue. If the site is determined to be cultural, then the area will be treated as potentially-eligible for the National Register. That is, it will be protected as a significant cultural resource until a determination can be made of its National Register eligibility. *Note*: The consulting archeologist will file an AHRS form and may be able to make an immediate determination of eligibility if the site is clearly ineligible for the National Register. Alaska SHPO must concur with determinations of eligibility.

5. If evaluation determines that the site is not for the National Register, ground-disturbing activities may continue. If evaluation determines that the site is eligible for the National Register, the site will be protected or mitigated. ***If the site contains burials, funerary items, or other objects of cultural patrimony, then USARAK will consult with Native Alaskan entities (Section 5.5.3) per NAGPRA prior to resumption of ground disturbance regardless of National Register eligibility***.

6.6 SOP: Rehabilitation and Maintenance of Historic Properties

This SOP outlines procedures for maintenance and repair of historic buildings in accordance with the *Secretary of the Interior's Standards for Rehabilitation* (Appendix B). The SOP identifies activities that will result in determinations of *no historic properties affected* and *no adverse effect*. This SOP, however, does not exempt undertakings from coordination with the Alaska SHPO.

1. The following actions associated with maintenance and repair of landscapes, roofs, exterior walls, windows, and doors will result in determinations of *no historic properties affected*:

- maintenance of existing grounds and landscaping;
- removal of snow, including the use of chemicals and salty agents;
- pruning of shrubbery and trees to allow light to reach walls and prevent undue dampness and mildew;
- routine cleaning of gutters and downspouts;
- installation of new insulation in roof cavities or floors;
- routine in kind maintenance of flashing;
- routine in kind maintenance of roofing; and
- cleaning walls surfaces with standard water pressure and natural bristle brushes;

2. The following actions associated with maintenance and repair of landscapes, roofs, exterior walls, windows, and doors will result in determinations of *no adverse effect*:

- minimal grading to direct water away from the base of buildings;
- repair of parking areas and roads in existing locations with materials and finishes that match existing materials and finishes;
- replacement and repair of existing water, sewage, and heating lines in their present configuration and alignment with in-kind repair without altering existing site features such as vegetation, lighting, walks, steps, and building foundations;
- replacement and repair of existing electric lines and poles in their present configuration and alignment;
- repair of roofs using the same material as existing;
- painting of metal roofs using existing color, color identified in design standards, or historic color schemes;
- replacing existing roofing in-king or to match historic roofing material;
- installing “ice-and-water barrier” material along the lower edges of roofing;
- placement of snow guards that are sympathetic to roof design to prevent hazards from accumulated snow or ice;
- repair of existing foundation walls, footings, piers, and slabs to match existing materials, installation technique, profile, and finish;
- exterior painting of foundation provided that appropriate preparation techniques are employed to ensure that the new paint surface is compatible with the foundation and the original texture and color are matched;
- replacement in-kind of existing siding matching existing appearance, color, and texture;
- reglazing and caulking broken window panes to match original;
- replacement or repair of trim to match existing;
- replacement or repair of existing window screening to match existing; and
- replacement or repair of existing door screening to match existing.

All other maintenance and repair activities not listed above or not consistent with the *Secretary of the Interior’s Standards for Rehabilitation* will receive determinations of *adverse effect* and will require Section 106 consultation with the Alaska SHPO .

6.7 SOP: Coordination With the Public

Numerous provisions of cultural resources legislation require that interested members of the public have access to cultural resources management programs undertaken at public expense. Nevertheless, cultural resources are exempt from the Freedom of Information Act because identifying the location of cultural resources may subject them to vandalism.

While coordinating with the public, USARAK will take measures to control the dissemination of cultural resources information and will provide no information on the location of archeological sites. This SOP does not concern consultation with the Alaska SHPO, Advisory Council, or Native Alaskan entities. USARAK's cultural resources documents will be prepared so that maps of specific site locations are easily removable. Documents for the public will be copied so that maps or site forms (*i.e.* AHRS forms) are not included.

6.8 SOP: Cultural Resources Contracting

6.8.1 Who is Responsible?

Cultural resources contracting is the responsibility of the CRM.

6.8.2 Procedures

The CRM will write scopes of work for all contracted cultural resources activities. Scopes of work will stipulate that prospective contractors meet professional standards as outlined in the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-9). Deliverables will follow the *Secretary of the Interior's Standards* for the specific cultural resources activity(ies) specified in the contract. The CRM will review cultural resources contracts before they are let to ensure that all specifications spelled out in the scope of work are clearly enumerated in the contract. Once the contract is signed, the CRM will act as the point of contact for the contractor.

7.0 IMPLEMENTATION

USARAK is capable of implementing this ICRMP and fulfilling goals and responsibilities established in Section 2. Implementation will be accomplished by Public Works with funding from USARPAC. It will require no additional personnel other than a full-time Environmental Scientist to serve as Fort Richardson's Cultural Resources Manager. Implementation will depend upon maintaining an effective working relationship with the Alaska SHPO.

7.1 ICRMP Implementation Costs (*For Official Use Only*)

In accordance with AR 200-4, an estimate of implementation costs is provided below. It consists of a table of projected cultural resources Environmental Program Requirements submissions by Environmental Division for the next five years but does not include staff salaries or support from other USARAK organizations or outside agencies.

Projected Environmental Program Requirements Submissions for Cultural Resources Management, 2002-2006

EPR Number	Project (INRMP Section)	2002	2003	2004	2005	2006
FRA9700012	Archeological Inventory (Section 5.2.1.1)	$30,000	$65,000	$80,000	$35,000	$70,000
FRA9800010	Historic Properties Inventory (Section 5.2.2.1)	$70,000	$0	$0	$0	$0
FRA940001	Management of Nike Site Summit Historic District (Section 5.4.4..3.1.2)	$441,148	$5,000	$5,000	$5,000	$5,000

7.2 Environmental Program Requirements Submissions (Narrative)

7.2.1 Archeological Inventory

EPR: FRA9700012

Description. Inventory archeological resources on Fort Richardson (Section 5.2.1.1).

Justification. USARAK is required to inventory, *i.e.* identify and evaluate, archeological resources on Fort Richardson by Section 110 of the National Historic Preservation Act (1980) and Executive Order 11593, *Protection and Enhancement of Cultural Environment*. Priorities for archeological survey are detailed in Section 5.2.1.1 and based on a combination of archeological sensitivity and projected mission impacts. Surveys planned for 2002-2006 have been assigned funding classes according to survey priority as indicated in the following table.

EPR #*FRA9700012*

Year	Class	Priority	Survey Area	Cost
2002	1	high	Upper Ship Creek	$30,000

Year	Class	Priority	Survey Area	Cost
2003	1	high	Knik Arm	$65,000
2004	2	moderate	Upper Eagle River	$30,000
2004	2	moderate	Fossil Creek drainage	$50,000
2005	3	low	Training Area 2 (A,B)	$35,000
2006	3	low	Iditarod Historic Trail	$70,000

Methods. Archeological surveys will consist of surface reconnaissance with supplemental shovel testing. Archeological survey methods and requirements for submission of reports are described in Section 5.2.1.2. If possible, the archeologist will make a determination of National Register eligibility (Section 5.3.2) for any site discovered. If a site requires further evaluation to determine eligibility, it will be scheduled for evaluation as indicated in Section 5.3.2.

7.2.2 Historic Properties Inventory

EPR: FRA9800010

Description. Inventory properties 50 years of age or older (Section 5.2.2.1).

Justification. Inventory of historic properties on Fort Richardson is required by Section 110 of the National Historic Preservation Act (1980) and Executive Order 11593, *Protection and Enhancement of Cultural Environment*. Inventory of the 46 properties 50 years of age or older (Section 5.2.2.1) is the only remaining requirement for historic properties inventory on Fort Richardson. Documentation of these properties will be the highest priority for cultural resources inventory during 2002 - 2006.

Methods. Methods for inventory of historic properties are discussed in Section 5.2.2.2. As part of the inventory, the properties will be evaluated for National Register eligibility as indicated in Section 5.3.3.

7.2.3 Management of Nike Site Summit Historic District

EPR: FRA940001

Description. Stabilize and maintain Nike Site Summit Historic District (Section 5.4.4.3.1.2).

Justification. Per Section 106 of the National Historic Preservation Act USARAK is required to take into account effects of undertakings on Nike Site Summit Historic District, a National Register-listed resource. The district is currently subject to adverse effects (*i.e.* deterioration) from neglect. In order to comply with the National Historic Preservation Act and 36 CFR 68, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, USARAK will stabilize, *i.e.* repair, and maintain Nike Site Summit Historic District.

Methods. USARAK will conduct repairs necessary to stabilize and protect Site Summit properties as described in Section 5.4.4.3.1.2. Thereafter, routine maintenance will be scheduled annually, or as needed. Site Summit will continue to be available for training exercises.

7.3 Command Support

Command support is essential to implementation of this plan. Per AR 200-4, the Post Commander is responsible for noncompliance with cultural resource legislation, such as those affected by this ICRMP. Thus, the Post Commander has a personal interest in assuring the Plan is properly implemented. This ICRMP also has the support of USARPAC.

8.0 National Environmental Policy Act Compliance

An Environmental Assessment (EA) and a Finding of No Significant Impact (FNSI) have been prepared for the implementation of the ICRMP. The environmental documents are required by the National Environmental Policy Act of 1969 and Army Regulation (AR) 200-2, Environmental Effects of Army Actions. A 30 day public review and comment period will be scheduled after the ICRMP and the environmental documents have been approved and signed by USARAK. The completed environmental documents are at Appendix F. This action concludes the environmental impact analysis process.

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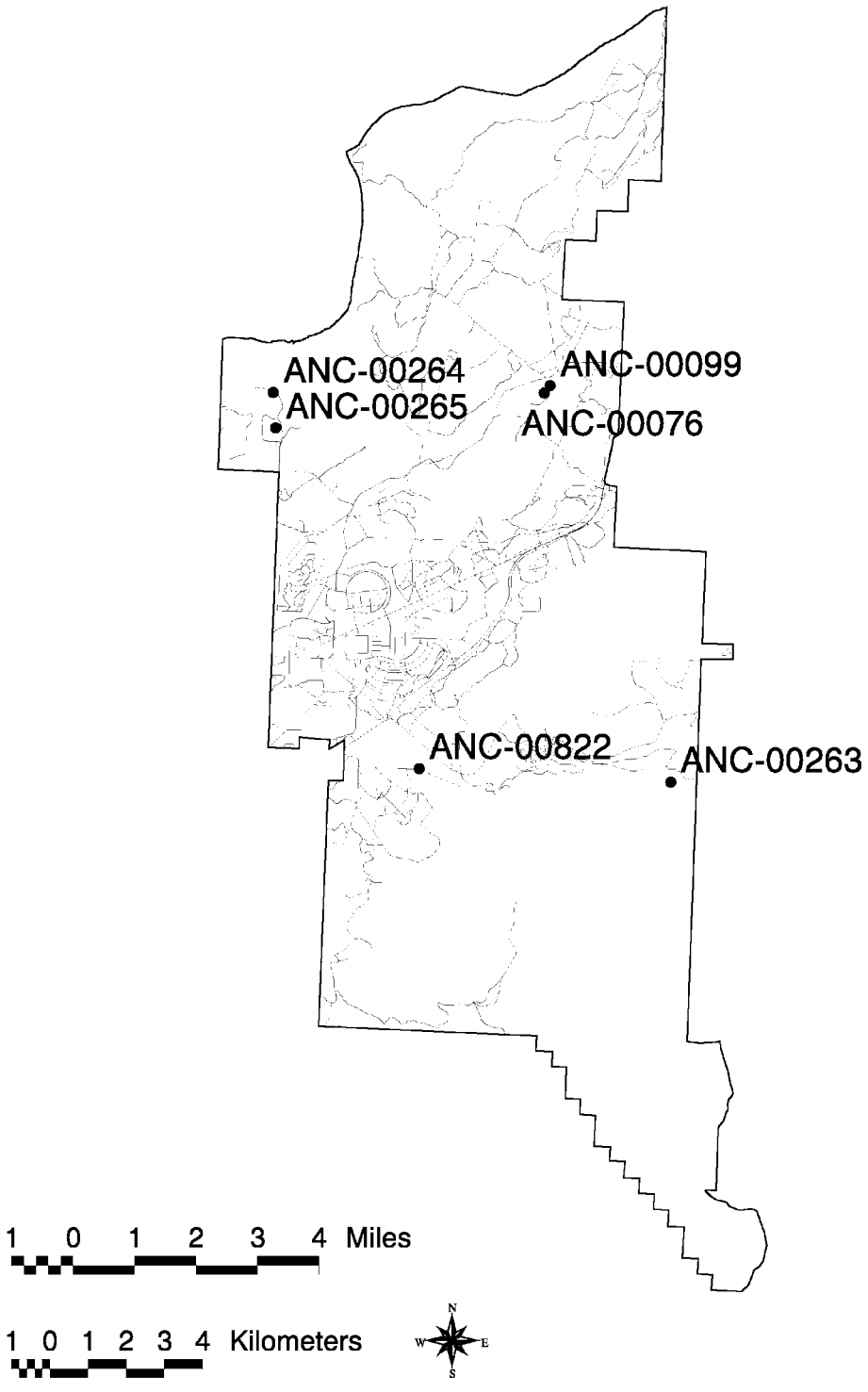
11.0 TECHNICAL ATTACHMENTS

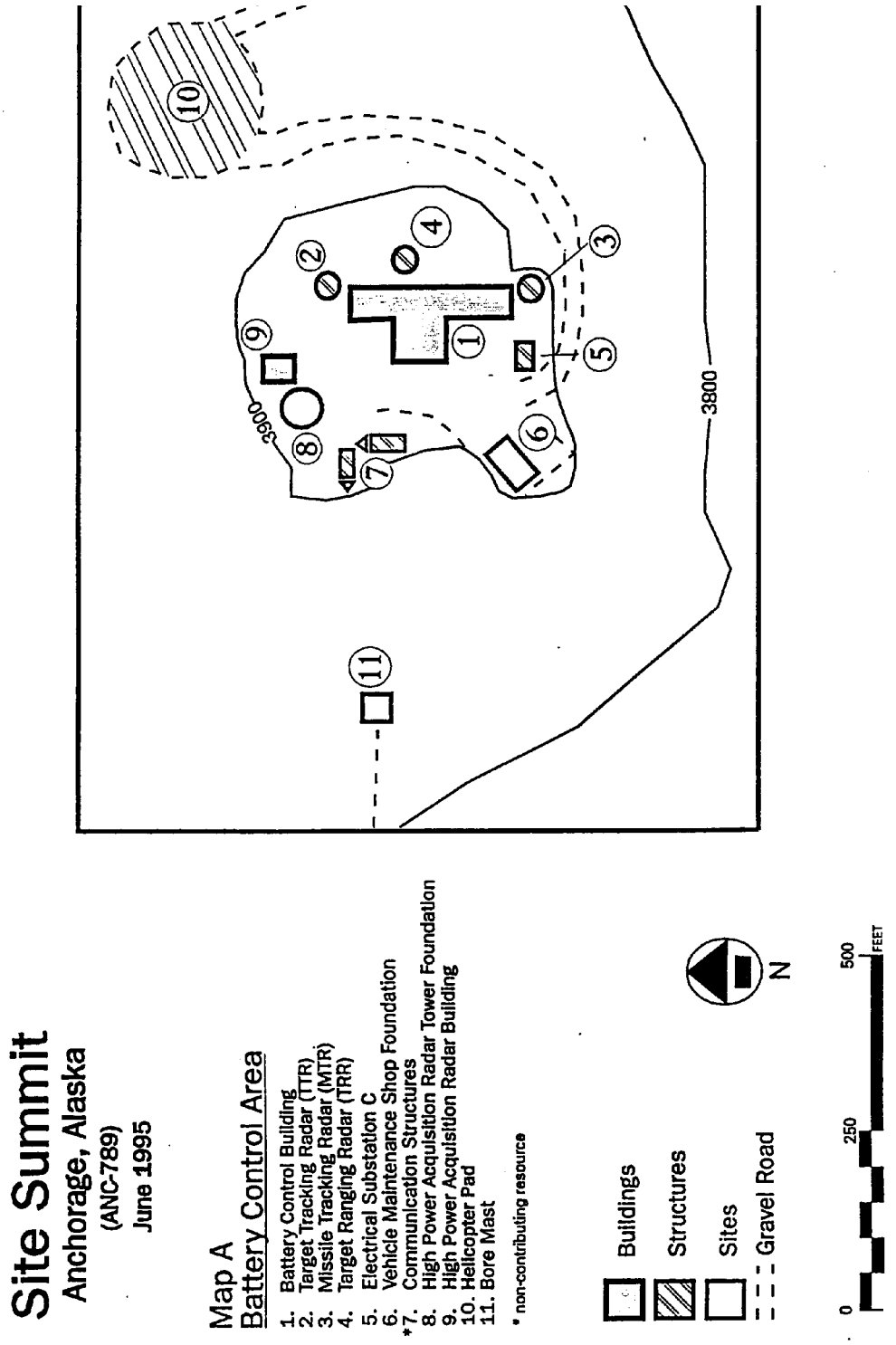
MAP A: Archeological Survey Areas, Fort Richardson, 2000

MAP B: Archeological Sites, Fort Richardson, 2000



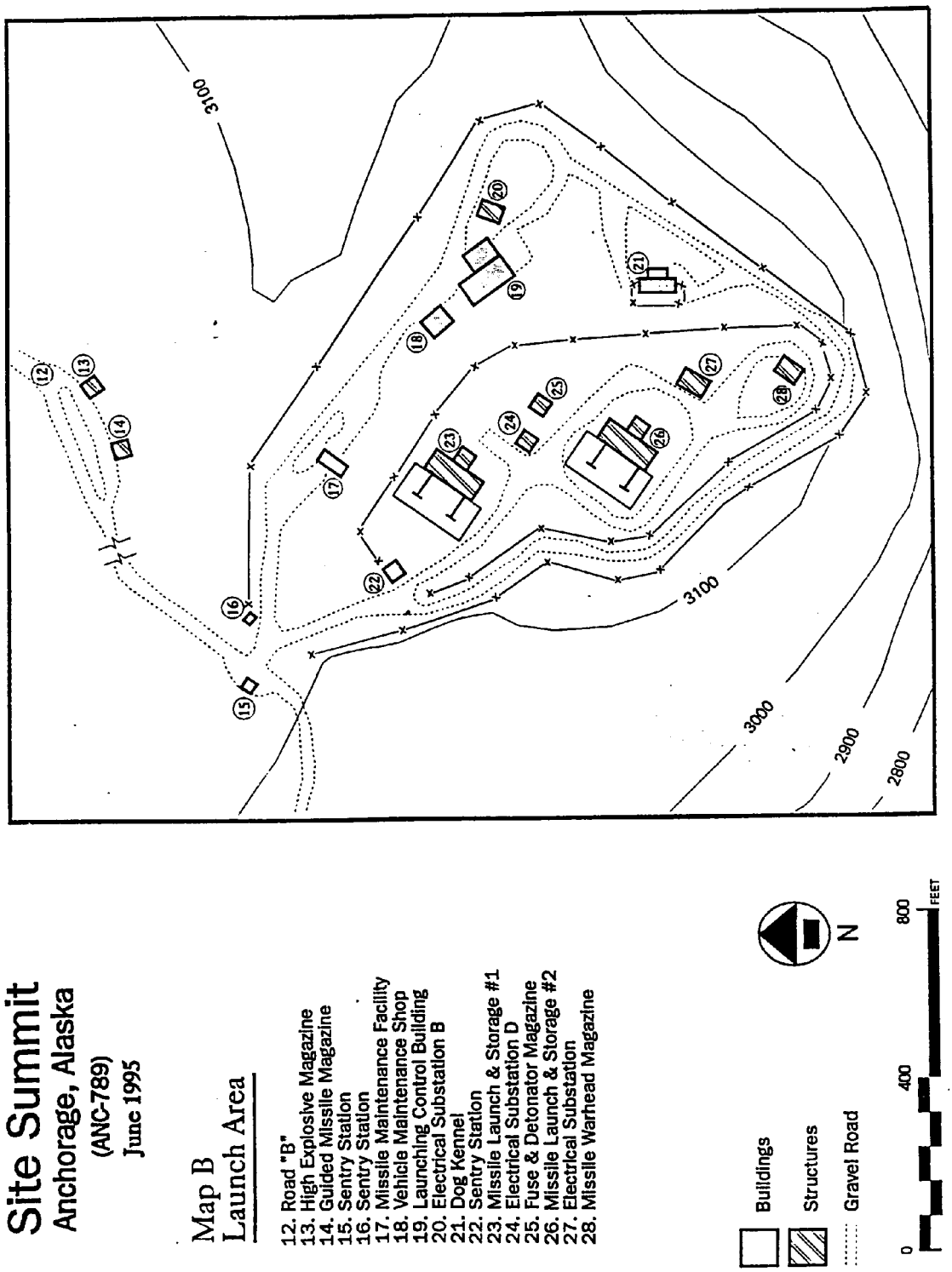
MAP C: Battery Control Area, Nike Site Summit Historic District

Source: National Register of Historic Places Registration Form, Site Summit, Anchorage, Alaska (Alaska State Historic Preservation Office, 1995).

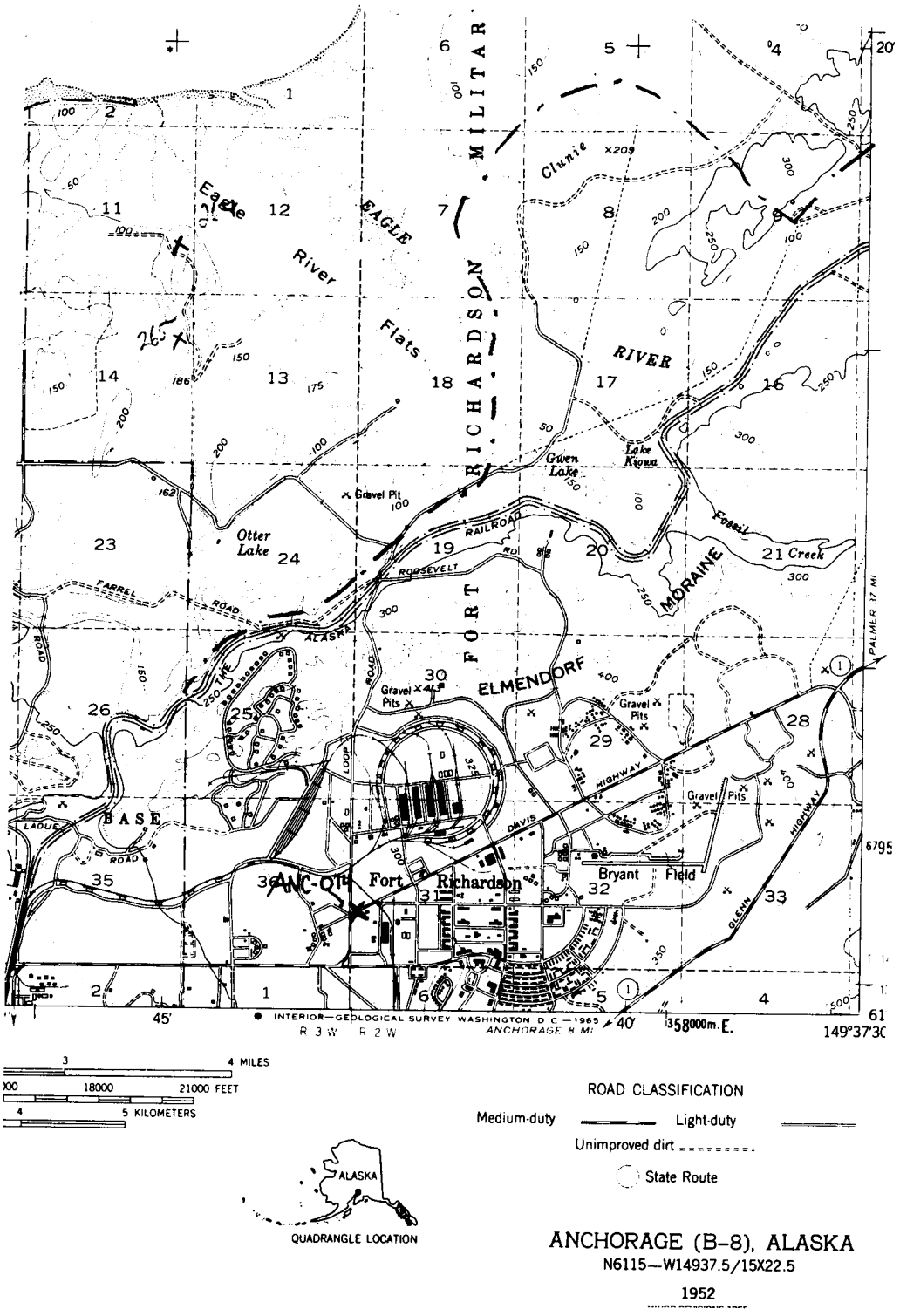


MAP D: Launch Area, Nike Site Summit Historic District

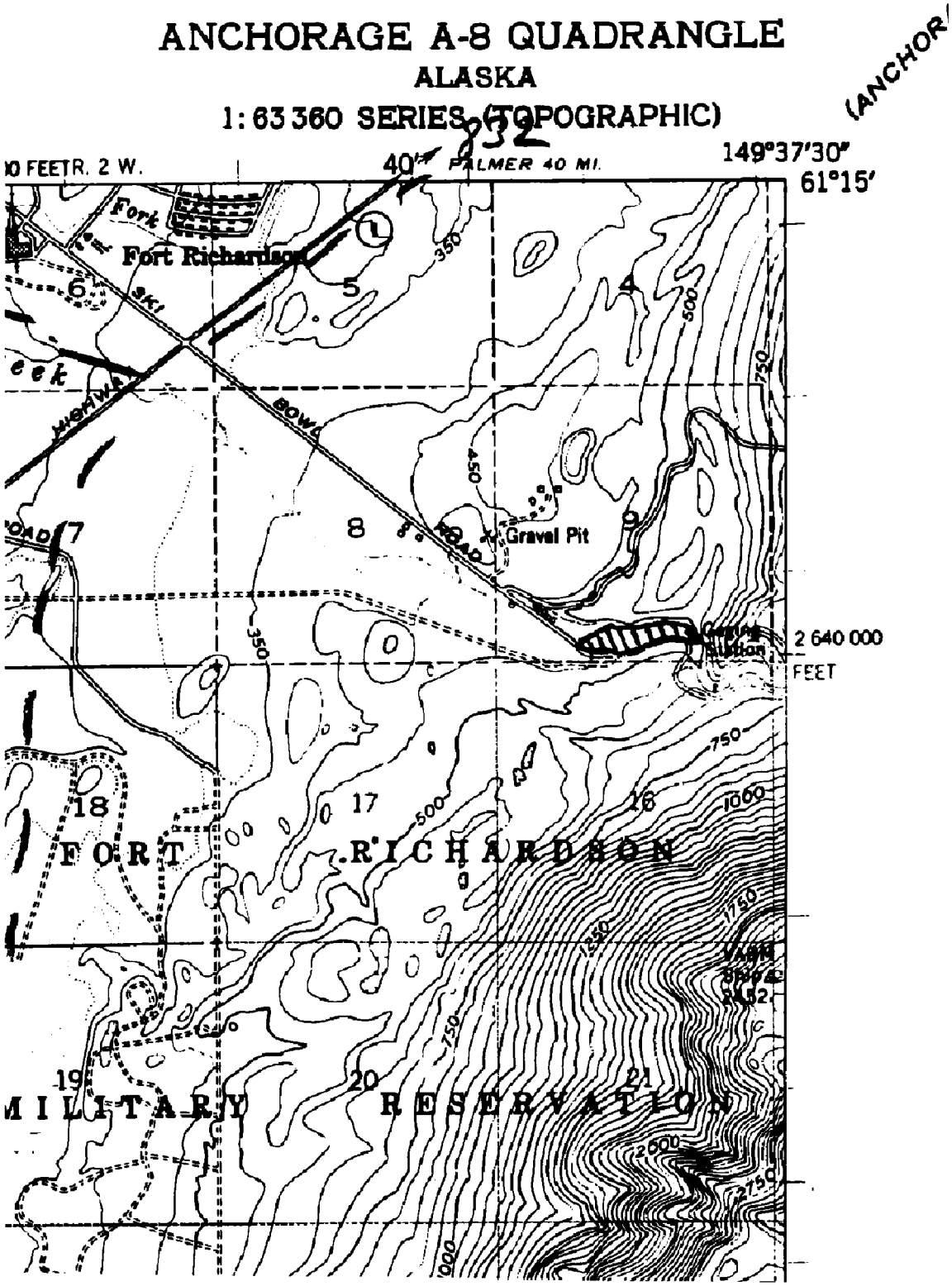
Source: National Register of Historic Places Registration Form, Site Summit, Anchorage, Alaska (Alaska State Historic Preservation Office, 1995).



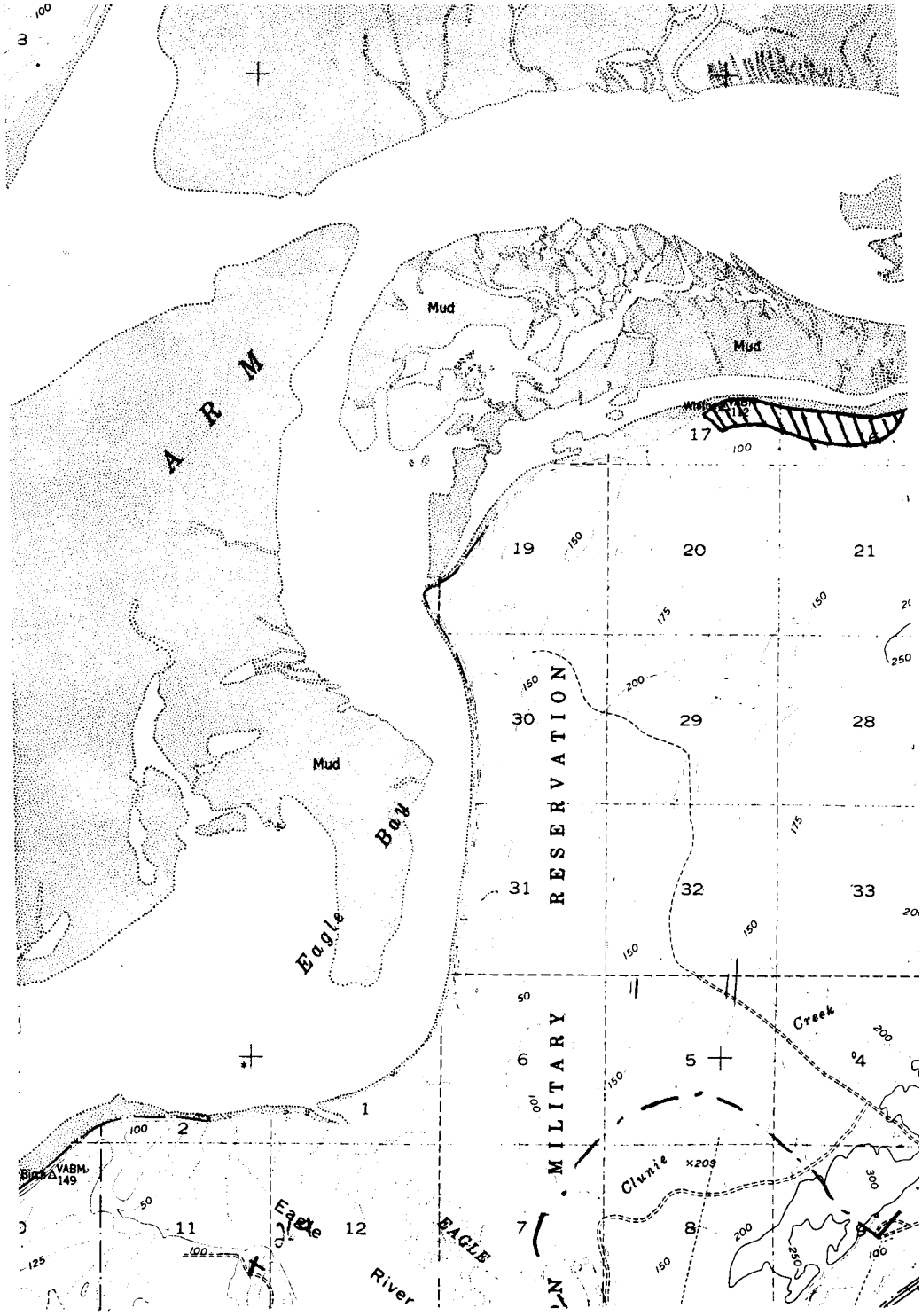
MAP E: Monument Corner, ANC-014



MAP F: Ship Creek Homesites (Sensitive Archeological Area)



MAP G: School Fish Camp Site (Sensitive Archeological Area)



Appendix A: 36 CFR 79, Curation of Federally-Owned Archeological Resources

Authority: 16 U.S.C. 470aa-mm, 16 U.S.C. 470 et seq.[6]

s 79.1 Purpose.

(a) The regulations in this part establish definitions, standards, procedures and guidelines to be followed by Federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of the Antiquities Act (16 U.S.C. 431- 433), the Reservoir Salvage Act (16 U.S.C. 469-469c), section of the National Historic Preservation Act (16 U.S.C. 470h-2) or the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm). They establish:

(1) Procedures and guidelines to manage and preserve collections;
(2) Terms and conditions for Federal agencies to include in contracts, memoranda, agreements or, other written instruments with repositories for curatorial services;
(3) Standards to determine when a repository has the capability to provide long-term curatorial services; and
(4) Guidelines to provide access to, loan and otherwise use collections.

(b) The regulations in this part contain three appendices that provide additional guidance for use by the Federal Agency Official.

(1) Appendix A to these regulations contains an example of an agreement between a Federal agency and a non-Federal owner of material remains who is donating the remains to the Federal agency.
(2) Appendix B to these regulations contains an example of a memorandum of understanding between a Federal agency and a repository for long-term curatorial services for a federally-owned collection.
(3) Appendix C to these regulations contains an example of an agreement between a repository and a third party for a short-term loan of a federally- owned collection (or a part thereof).
(4) The three appendices are meant to illustrate how such agreements might appear. They should be revised according to the:
(i) Needs of the Federal agency and any non-Federal owner;
(ii) Nature and content of the collection; and
(iii) Type of contract, memorandum, agreement or other written instrument being used.
(5) When a repository has preexisting standard forms (e.g., a short-term loan form) that are consistent with the regulations in this part, those forms may be used in lieu of developing new ones.

s 79.8 Terms and conditions to include in contracts, memoranda and agreements for curatorial services.

The Federal Agency Official shall ensure that any contract, memorandum, agreement or other appropriate written instrument for curatorial services that is entered into by or on behalf of that Official, a Repository

[6]Due to the length of this regulation, only portions are provided here.

Official and any other appropriate party contains the following:

(a) A statement that identifies the collection or group of collections to be covered and any other U.S. Government-owned personal property to be furnished to the repository;

(b) A statement that identifies who owns and has jurisdiction over the collection;

(c) A statement of work to be performed by the repository;

(d) A statement of the responsibilities of the Federal agency and any other appropriate party;

(e) When the collection is from Indian lands:

(1) A statement that the Indian landowner and the Indian tribe having jurisdiction over the lands consent to the disposition; and
(2) Such terms and conditions as may be requested by the Indian landowner and the Indian tribe.

(f) When the collection is from a site on public lands that the Federal Agency Official has determined is of religious or cultural importance to any Indian tribe having aboriginal or historic ties to such lands, such terms and conditions as may have been developed pursuant to Sec. -.7 of uniform regulations 43 CFR part 7, 36 CFR part 296, 18 CFR part 1312, and 32 CFR part 229;

(g) The term of the contract, memorandum or agreement; and procedures for modification, suspension, extension, and termination;

(h) A statement of costs associated with the contract, memorandum or agreement; the funds or services to be provided by the repository, the Federal agency and any other appropriate party; and the schedule for any payments;

(i) Any special procedures and restrictions for handling, storing, inspecting, inventorying, cleaning, conserving, and exhibiting the collection;

(j) Instructions and any terms and conditions for making the collection available for scientific, educational and religious uses, including procedures and criteria to be used by the Repository Official to review, approve or deny, and document actions taken in response to requests for study, laboratory analysis, loan, exhibition, use in religious rituals or spiritual activities, and other uses. When the Repository Official to approve consumptive uses, this should be specified; otherwise, the Federal Agency Official should review and approve consumptive uses. When the repository's existing operating procedures and criteria for evaluating requests to use collections are consistent with the regulations in this part, they may be used, after
making any necessary modifications, in lieu of developing new ones;

(k) Instructions for restricting access to information relating to the nature, location and character of the prehistoric or historic resource from which the material remains are excavated or removed;

(l) A statement that copies of any publications resulting from study of the collection are to be provided to the Federal Agency Official and, when the collection is from Indian lands, to the Tribal Official and the

Tribal Historic Preservation Officer, if any, of the Indian tribe that owns or has jurisdiction over such lands;

(m) A statement that specifies the frequency and methods for conducting and documenting the inspections and inventories stipulated in Sec. 79.11 of this part;

(n) A statement that the Repository Official shall redirect any request for transfer or repatriation of a federally-owned collection (or any part thereof) to the Federal Agency Official, and redirect any request for transfer or repatriation of a federally administered collection (or any part thereof) to the Federal Agency Official and the owner;

(o) A statement that the Repository Official shall not transfer, repatriate or discard a federally-owned collection (or any part thereof) without the written permission of the Federal Agency Official, and not transfer, repatriate or discard a federally administered collection (or any part thereof) without the written permission of the Federal Agency Official and the owner;

(p) A statement that the Repository Official shall not sell the collection; and

(q) A statement that the repository shall provide curatorial services in accordance with the regulations in this part.

s 79.9 Standards to determine when a repository possesses the capability to provide adequate long-term curatorial services.

The Federal Agency Official shall determine that a repository has the capability to provide adequate long-term curatorial services when the repository is able to:

(a) Accession, label, catalog, store, maintain, inventory and conserve the particular collection on a long-term basis using professional museum and archival practices; and

(b) Comply with the following, as appropriate to the nature and consent of the collection;
(1) Maintain complete and accurate records of the collection, including:
(i) Records on acquisitions;
(ii) Catalog and artifact inventory lists;
(iii) Descriptive information, including field notes, site forms and reports;
(iv) Photographs, negatives and slides;
(v) Locational information, including maps;
(vi) Information on the condition of the collection, including any completed conservation treatments;
(vii) Approved loans and other uses;
(viii) Inventory and inspection records, including any environmental monitoring records;
(ix) Records on lost, deteriorated, damaged or destroyed Government property; and
(x) Records on any deaccessions and subsequent transfers, repatriations or discards, as approved by the Federal Agency Official;

(2) Dedicate the requisite facilities, equipment and space in the physical plant to properly store, study and conserve the collection. Space used for storage, study, conservation and, if exhibited, any

exhibition must not be used for non-curatorial purposes that would endanger or damage the collection;

(3) Keep the collection under physically secure conditions within storage, laboratory, study and any exhibition areas by:

(i) Having the physical plant meet local electrical, fire, building, health and safety codes;

(ii) Having an appropriate and operational fire detection and suppression system;

(iii) Having an appropriate and operational intrusion detection and deterrent system;

(iv) Having an adequate emergency management plan that establishes procedures for responding to fires, floods, natural disasters, civil unrest, acts of violence, structural failures and failures of mechanical systems within the physical plant;

(v) Providing fragile or valuable items in a collection with additional security such as locking the items in a safe, vault or museum specimen cabinet, as appropriate;

(vi) Limiting and controlling access to keys, the collection and the physical plant; and

(vii) Inspecting the physical plant in accordance with Sec. 79.11 of this part for possible security weaknesses and environmental control problems, and taking necessary actions to maintain the integrity of the collection;

(4) Require staff and any consultants who are responsible for managing and preserving the collection to be qualified museum professionals;

(5) Handle, store, clean, conserve and, if exhibited, exhibit the collection in a manner that:

(i) Is appropriate to the nature of the material remains and associated records;

(ii) Protects them from breakage and possible deterioration from adverse temperature and relative humidity, visible light, ultraviolet radiation, dust, soot, gases, mold, fungus, insects, rodents and general neglect; and

(iii) Preserves data that may be studied in future laboratory analyses. When material remains in a collection are to be treated with chemical solutions or preservatives that will permanently alter the remains, when possible, retain untreated representative samples of each affected artifact type, environmental specimen or other category of material remains to be treated. Untreated samples should not be stabilized or conserved beyond dry brushing;

(6) Store site forms, field notes, artifacts inventory lists, computer disks and tapes, catalog forms and a copy of the final report in a manner that will protect them from theft and fire such as:

(i) Storing the records in an appropriate insulated, fire resistant, locking cabinet, safe, vault or other container, or in a location with a fire suppression system;

(ii) Storing a duplicate set of records in a separate location; or

(iii) Ensuring that records are maintained and accessible through another party. For example, copies of final reports and site forms frequently are maintained by the State Historic Preservation Officer, the State Archeologist or the State museum or university. The Tribal Historic Preservation Officer and Indian tribal museum ordinarily maintain records on collections recovered from sites located on Indian lands. The National Technical Information Service and the Defense Technical Information Service maintain copies of final reports that have been deposited by Federal agencies. The National Archeological Database maintains summary information on archeological reports and projects, including information on the location of those reports.

(7) Inspect the collection in accordance with Sec. 79.11 of this part for possible deterioration and damage, and perform only those actions as are absolutely necessary to stabilize the collection and rid it of

any agents of deterioration;

(8) Conduct inventories in accordance with Sec. 79.11 of this part to verify the location of the material remains, associated records and any other Federal personal property that is furnished to the repository; and

(9) Provide access to the collection in accordance with Sec. 79.10 of this part.

s 79.10 Use of collections.

(a) The Federal Agency Official shall ensure that the Repository Official makes the collection available for scientific, educational and religious uses, subject to such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection.

(b) Scientific and educational uses. A collection shall be made available to qualified professionals for study, loan and use for such purposes as in-house and traveling exhibits, teaching, public interpretation, scientific analysis and scholarly research. Qualified professionals would include, but not be limited to, curators, conservators, collection managers, exhibitors, researchers, scholars, archeological contractors and educators. Students may use a collection when under the direction of a qualified professional. Any resulting exhibits and publications shall acknowledge the repository as the curatorial facility and the Federal agency as the owner or administrator, as appropriate. When the collection is from Indian lands and the Indian landowner and the Indian tribe having jurisdiction over the lands wish to be identified, those individuals and the Indian tribe shall also be acknowledged. Copies of any resulting publications shall be provided to the Repository Official and the Federal Agency Official. When Indian lands are involved, copies of such publications shall also be provided to the Tribal Official and the Tribal Historic Preservation Officer, if any, of the Indian tribe that owns or has jurisdiction over such lands.

(c) Religious uses. Religious remains in a collection shall be made available to persons for use in religious rituals or spiritual activities. Religious remains generally are of interest to medicine men and women, and other religious practitioners and persons from Indian tribes, Alaskan Native corporations, Native Hawaiians, and other indigenous and immigrant ethnic, social and religious groups that have aboriginal or historic ties to the lands from which the remains are recovered, and have traditionally used the remains or class of remains in religious rituals or spiritual activities.

(d) Terms and conditions.

(1) In accordance with section 9 of the Archaeological Resources Protection Act (16 U.S.C. 470hh) and section 304 of the National Historic Preservation Act (16 U.S.C. 470 w-3), the Federal Agency Official shall restrict access to associated records that contain information relating to the nature, location or character of a prehistoric or historic resource unless the Federal Agency Official determines that such disclosure would not create a risk of harm, theft or destruction to the resource or to the area or place where the resource is located.

(2) Section -.18(a)(2) of uniform regulations 43 CFR part 7, 36 CFR part 296, 18 CFR part 1312, and 32 CFR part 229 sets forth procedures whereby information relating to the nature, location or character of a prehistoric or historic resource may be made available to the Governor of any State. The Federal

Agency Official may make information available to other persons who, following the procedures in Sec.-18(a)(2) of the referenced uniform regulations, demonstrate that the disclosure will not create a risk of harm, theft or destruction to the resource or to the area or place where the resource is located. Other persons generally would include, but not be limited to, archeological contractors, researchers, scholars, tribal representatives, Federal, State and local agency personnel, and other persons who are studying the resource or class or resources.

(3) When a collection is from Indian lands, the Federal Agency Official shall place such terms and conditions as may be requested by the Indian landowner and the Indian tribe having jurisdiction over the lands on:

(i) Scientific, educational or religious uses of material remains; and

(ii) Access to associated records that contain information relating to the nature, location or character of the resource.

(4) When a collection is from a site on public lands that the Federal Agency Official has determined is of religious or cultural importance to any Indian tribe having aboriginal or historic ties to such lands, the Federal Agency Official shall place such terms and conditions as may have been developed pursuant to Sec. -.7 of uniform regulations 43 CFR part 7, 36 CFR part 296, 18 CFR part 1312, and 32 CFR part 229 on:

(i) Scientific, educational or religious uses of material remains; and

(ii) Access to associated records that contain information relating to the nature, location or character of the resource.

(5) The Federal Agency Official shall not allow uses that would alter, damage or destroy an object in a collection unless the Federal Agency Official determines that such use is necessary for scientific studies or public interpretation, and the potential gain in scientific or interpretive information outweighs the potential loss of the object. When possible, such use should be limited to unprovenienced, nonunique, nonfragile objects, or to a sample of objects drawn from a larger collection of similar objects.

(e) No collection (or a part thereof) shall be loaned to any person without a written agreement between the Repository Official and the borrower that specifies the terms and conditions of the loan. Appendix C to the regulations in this part contains an example of a short-term loan agreement for a federally-owned collection. At a minimum, a loan agreement shall specify:

(1) The collection or object being loaned;

(2) The purpose of the loan;

(3) The length of the loan;

(4) Any restrictions on scientific, educational or religious uses, including whether any object may be altered, damaged or destroyed;

(5) Except as provided in paragraph (e)(4) of this section, that the borrower shall handle the collection or object being borrowed during the term of the loan in accordance with this part so as not to damage or reduce its scientific, educational, religious or cultural value; and

(6) Any requirements for insuring the collection or object being borrowed for any loss, damage or destruction during transit and while in the borrower's possession.

(f) The Federal Agency Official shall ensure that the Repository Official maintains administrative records that document approved scientific, educational and religious uses of the collection.

(g) The Repository Official may charge persons who study, borrow or use a collection (or a part thereof) reasonable fees to cover costs for handling, packing, shipping and insuring material remains, for photocopying associated records, and for other related incidental costs.

Appendix B: 36 CFR 67, Secretary of the Interior's Standards for Rehabilitation, 1990

The Secretary of the Interior's Standards for Rehabilitation are ten basic principles created to help preserve the distinctive character of a historic building its site, while allowing for reasonable change to meet new needs.

The Standards apply to historic buildings of all periods, styles, types, materials, and sizes. They apply to both the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building's site and environment as well as attached, adjacent, or related new construction.

The Standards are applied to projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Appendix C: 36 CFR 68, Secretary of the Interior's Standards for the Treatment of Historic Properties, 1990

Sec.
68.1 Intent.
68.2 Definitions.
68.3 Standards.

Authority: The National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.); sec. 2124 of the Tax Reform Act of 1976, 90 Stat. 1918; EO 11593, 3 CFR part 75 (1971); sec. 2 of Reorganization Plan No. 3 of 1950 (64 Stat. 1262).

Source: 60 FR 35843, July 12, 1995, unless otherwise noted.

Sec. 68.1 Intent. The intent of this part is to set forth standards for the treatment of historic properties containing standards for preservation, rehabilitation, restoration and reconstruction. These standards apply to all proposed grant-in-aid development projects assisted through the National Historic Preservation Fund. 36 CFR part 67 focuses on "certified historic structures" as defined by the IRS Code of 1986. Those regulations are used in the Preservation Tax Incentives Program. 36 CFR part 67 should continue to be used when property owners are seeking certification for Federal tax benefits.

Sec. 68.2 Definitions. The standards for the treatment of historic properties will be used by the National Park Service and State historic preservation officers and their staff members in planning, undertaking and supervising grant-assisted projects for preservation, rehabilitation, restoration and reconstruction. For the purposes of this part:

(a) *Preservation* means the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

(b) *Rehabilitation* means the act or process of making possible an efficient compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.

(c) *Restoration* means the act or process of accurately depicting the form, features and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

(d) *Reconstruction* means the act or process of depicting, by means of new construction, the form, features and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Sec. 68.3 Standards. One set of standards--preservation, rehabilitation, restoration or reconstruction--will apply to a property undergoing treatment, depending upon the property's significance, existing physical condition, the extent of documentation available and interpretive goals, when applicable. The standards will be applied taking into consideration the economic and technical feasibility of each project.

(a) *Preservation*.

(1) A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

(2) The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

(3) Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.

(4) Changes to a property that have acquired historic significance in their own right will be retained and preserved.

(5) Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

(6) The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color and texture.

(7) Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

(8) Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

(b) *Rehabilitation*.

(1) A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

(2) The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

(3) Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

(4) Changes to a property that have acquired historic significance in their own right will be retained and preserved.

(5) Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

(6) Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

(7) Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

(8) Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

(9) New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

(10) New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

(c) *Restoration*.

(1) A property will be used as it was historically or be given a new use that interprets the property and its restoration period.

(2) Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces and spatial relationships that characterize the period will not be undertaken.

(3) Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.

(4) Materials, features, spaces and finishes that characterize other historical periods will be documented prior to their alteration or removal.

(5) Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

(6) Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials.

(7) Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

(8) Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

(9) Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

(10) Designs that were never executed historically will not be constructed.

(d) *Reconstruction*.

(1) Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property.

(2) Reconstruction of a landscape, building, structure or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts that are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.

(3) Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.

(4) Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color and texture.

(5) A reconstruction will be clearly identified as a contemporary re-creation.

(6) Designs that were never executed historically will not be constructed.

Appendix D: Property Condition Assessment / Cost Estimate, Nike Site Summit Historic District

Source: *Management of a Nike Site: A Feasibility Study for Management of Nike Site Summit, Fort Richardson, Alaska* (Alaska SHPO, 1997b)

Building Assessments

Site Summit (ANC-789)

Site Summit consists of two activity areas composed of the Battery Control area at the 3,900-foot elevation and the Missile Launch area at the 3,100-foot elevation of Mount Gordon Lyon. These two areas are approximately 1.5 miles apart and connected by gravel road. The Battery Control area consists of the Battery Control Building, the HIPAR Building, the Target Tracking Radar, the Missile Tracking Radar, Target Ranging Radar, Electrical Substation C, vehicle maintenance foundation, High Power Acquisition Radar (HIPAR) Tower Site, HIPAR Building, Helicopter pad, bore mast, and modern communications facilities. Overall the site is in good condition. Major issues that need to be addressed prior to any public access are how to secure modern communications facilities from the public and clean up of building debris associated with the deterioration of the Battery Control Building.

The lower Missile Launch area consist of three sentry stations, three electrical substations, a vehicle maintenance shop and storage building, a launching control building, a guided missile maintenance facility, a dog kennel, two missile launch and storage buildings, a fuse and detonator magazine and a missile warhead magazine. The major site features consist of the gravel road system, an inner and outer fencing, and perimeter site lighting. The gravel road is in good shape considering it has not received regular maintenance. If the site were open to the public that would result in increase of road traffic there would be the need to perform seasonal maintenance to the road.

Prior to opening the site to public access, a number of site issues would need to be addressed. The site is littered with construction debris, caused by both deterioration of the buildings by natural occurrences and by military training activities. The site should be cleaned of this debris as well as grubbed of willow growth that has occurred since site abandonment. Both the outer and inner fencing requires repair as well as their power gates. Regardless of whether the site is made available to the public, the fences should be repaired to secure the site from public access that is occurring now. Although the site has been abandoned for almost 20 years, the electrical service to all parts of the site remain active. This poses the greatest danger to the public and should be addressed immediately by the military. Both potable and waste water systems no longer function, and in most cases, have been removed. To open the site to public use will necessitate addressing how these services will be provided for. Finally, although not critical to public use of the site, the perimeter lighting requires repair and replacement.

Table 2: Site Summit Recommended Work[65]

Feature	Cost Estimate Critical	Serious	Total
Grub and Clean-up Site	5,809		**5,809**
Repair Fencing/Replace Gates	14,429		**14,429**
Waste Treatment[66]		1,386	**1,386**
Gravel Road Maintenance		16,158	**16,158**
Perimeter Lighting		7,749	**7,749**
Total	**$20,238**	**$25,293**	**$45,531**

Photograph 1: Launch Area's outer fence's motorized gate. Sentry Station #1 in background.

[65] Cost estimates generated by use of Waier, Phillip R. (editor), *Means Building Construction Cost Data Western Edition*. R.S. Means Company, Inc., Kingston, MA, 1995.

[66] Cost based on use of portable facilities for three months.

Battery Control Building (ANC-792)

The Battery Control Building is a composite T-shaped building. This two-story, flat roofed building is oriented on a north/south axis with the leg of the "T" on the west elevation. Measuring 44 feet by 232 feet, the main portion of the building is wood framed with 16" cementos asbestos board panel siding with 2-3/8" battens. The length of the building is divided into 17 even bays (1-17 north to south). Tie-downs consisting of 1" diameter rods connected to large concrete blocks are on the wood framed sides of the building and spaced at every other bay. On the east elevation, bay 9 has a personnel door centrally located on the first floor and enclosed by an arctic entry, bays 15-17 have large 6 light aluminum windows only on the second floor, bays 8 and 10 have large 12 light aluminum windows on the first floor and 6 light aluminum windows on the second floor. All remaining bays have the large 6 light aluminum windows on both first and second floors. A concrete firewall is placed between bays 6 and 7. The west wall of the main portion of the Battery Control Building has the same bay layout, but window and door placements are more random. The leg of the "T" occupies bays 6-9. Bay 11 contains a personnel door on the first floor and a 12 light aluminum sash window on the second. Bay 17 contains two personnel doors on the first floor with a 12 light aluminum sash window on the second. Bay 5 has 3 light aluminum sash windows on the first and second floors. The remaining bays have 12 light aluminum sash windows placed in the first and second floors. North and south elevations of the main portion of the building have one 3 light aluminum sash windows placed off center on the first floor as their only fenestration.

The leg of the "T" measures 62 feet by 66 feet. This two story, flat roofed building is constructed of reinforced concrete framing with tilt-up concrete panel infill. North and south elevations have six bays (1-6 east to west). On the north elevations, bays 1 and 2 are 12 feet high with personnel door placed in bay 2's western edge. Roof height of bays 3 to 6 is level to bays 1 and 2, but is 5 feet taller due to the slope of the site. There are personnel doors in bays 3 and 4 and a 3' x 3' louver at mid-height in bay 6. Bay 6's roof level is approximately 7 feet taller than the other bays. The south elevation's bays 1 and 2 are plain. Bay 3 has a personnel door and two louvers. Bay 4 and 5 each has a personnel door and a slightly larger adjacent removable panel. Bay 6 has a personnel door. The west elevation of this part of the building has four bays with the northern two bays two stories and the southern two one story. The southern two bays are plain. The two northern bays are identical with a personnel door and adjacent removable panel on the first floor and two large louvers on the second floor. On the south end of bay 1 is the concrete mount for the acquisition radar dome. The radar and dome have been removed. A flagpole is located west of the building, a few feet from the personnel door in bay 11.

The floor plan of the first floor of the main portion of the building consists of a central hallway flanked by offices, storage rooms, and restrooms in the northern half, and an open dining hall and kitchen in the southern half. The second floor has a central hall for the length of the building flanked by enlisted soldiers quarters, officer quarters, and restrooms. The first floor of the concrete leg of the "T" housed the battery control van, radar control van, radio and communications, van maintenance repair room, the generator room, and the boiler/mechanical room. The second floor of the leg only exists in the southeast corner and was the initial acquisition radar mount.

The Battery Control Building is in poor condition and requires immediate attention if it is to exist much longer. Placed near the summit of Mt. Gordon Lyon, the building has been racked by harsh weather and has suffered from training exercises. Critical issues that must be addressed in the next three years if the building is to be kept standing are the roofing, exterior doors, exterior windows, and exterior siding. The roofing has completely failed in areas, causing heavy water damage through the structure. All of the windows have been broken out during military exercises. These are boarded up with plywood that is also being impacted by exercises. Exterior doors are missing or left open and exterior siding is being blown away by the winds as fasteners rust out. If the building is to survive, it must be weather tightened to eliminate its deterioration by the harsh weather.

Table 3: Battery Control Building Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Exterior Wall Cover	4,667		**4,667**
Exterior Windows	36,720		**36,720**
Re-roof	241,292		**241,292**
Repair Wall Structure		1,872	**1,872**
Exterior Doors	4,655		**4,655**
Repaint Exterior		11,539	**11,539**
Replace Int. Wall Cover		15,159	**15,159**
Repair Int. Wall Structure		395	**395**
Replace Int. Ceilings		30,835	**30,835**
Repair Int. Ceil'g Struct.		891	**891**
Replace Flooring		101,093	**101,093**
Replace Int. Doors		11,050	**11,050**
Repaint Interior		60,897	**60,897**
Replace Insulation[67]		359,370	**359,370**
Replace Plumbing		282,150	**282,150**
Replace Electric		336,386	**336,386**
Replace Heating		286,853	**286,853**
Total	**$287,334**	**$1,498,490**	**$1,785,824**

[67] Cost estimate includes vapor barrier.

Photograph 4: Concrete leg portion of the Battery Control Building. Note missing siding on wood frame portion of building to the right.

Target Tracking Radar (ANC-793)

The Target Tracking Radar shelter is located adjacent to the northeast corner of the Battery Control Building. The first floor of this structure is a 20-foot diameter, 15,000 gallon fiberglass water tank. This water tank is freestanding. A clamshell metal enclosure is mounted on top for housing the radar. This shell is approximately 25' x 18' x 21'. It is connected to the Battery Control Building by an enclosed catwalk. Only the structure and mechanical equipment for operating the clamshell remains. The radar and associated technology were removed when the site was decommissioned.

This is a critical feature for the interpretation of the site and should be retained for exterior access. Critical issues that need to be addressed immediately are the securing of the personnel door to bar public access and to insure the roof structure is securely closed. An issue that should be addressed but is not critical for the security of the structure, is the exterior appearance of the water tank structure that the radar housing sits on. This has asbestos block insulation wrapping the tank that originally was covered by felt paper with aluminum paint.

The wind has removed the outer covering and is in the process of removing the insulation. To bring the exterior back to its original appearance, the asbestos insulation should be encapsulated with a material that will provide insulation, such as a foamed insulation, which in turn should be covered by felt and appropriate finish.

Table 4: Target Tracking Radar Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Repair Exterior Door	140		**140**
Repair Exterior Wall Cover	12,397	**12,397**	
Repaint Ext. Wall		11,618	**11,618**
Total	**$140**	**$24,015**	**$24,155**

Missile Tracking Radar (ANC-794)

The Missile Tracking Radar shelter is located adjacent to the southeast corner of the Battery Control Building. The first floor of this structure is a 20-foot diameter, 15,000-gallon fiberglass water tank. This water tank is freestanding. A clamshell metal enclosure is mounted on top for housing the radar. This shell is approximately 25' x 18' x 21'. It is connected to the Battery Control Building by an enclosed catwalk. Only the structure and mechanical equipment for operating the clamshell remains. The radar and associated technology were removed when the site was decommissioned.

This is a critical feature for the interpretation of the site and should be retained for exterior access. Only critical issues that need to be addressed immediately are the securing of the personnel door to bar public access and to insure the roof structure is securely closed. An issue that should be addressed but is not critical for the security of the structure is the exterior appearance of the water tank structure the radar housing sits on. This has asbestos block insulation wrapping the tank that originally was covered by felt paper with aluminum paint. The wind has removed the outer covering and is in the process of removing the insulation. To bring the exterior back to its original appearance, the asbestos insulation should be encapsulated with a material that will provide insulation such as a foamed insulation which in turn should be covered by felt and appropriate finish.

Table 5: Missile Tracking Radar Recommended Work

		Cost Estimate	
Feature	**Critical**	**Serious**	**Total**
Repair Exterior Door	140		**140**
Repair Exterior Wall Cover	12,397		**12,397**
Repaint Ext. Wall		11,618	**11,618**
Total	**$140**	**$24,015**	**$24,155**

Target Ranging Radar (ANC-795)

The Target Ranging Radar shelter was added in the fall of 1962. It is located approximately 22 feet east of the Battery Control Building. This freestanding structure is a 12' x 12' steel frame tower approximately 34 feet high. It is surmounted by a 16' x 9' building that housed the radar. A circular metal stair provides interior access to the top of the tower. This is placed inside of a 5' diameter vertical concrete tube. A clamshell structure approximately 18' x 24' x 5' formed the operable roof system. All radar technology has been removed from the structure. The tower is served by two utilidors that originate from bays 4 and 8 of the Battery control Building. The utilidor from bay 4 is approximately two feet square and ten feet off grade. These provide power and communications to the radar.

This is a critical feature for the interpretation of the site. It should be retained for exterior interpretation. It is in good structural condition and the only critical issues that need immediate attention is the securing of the personnel door to bar public access and to insure the roof system is closed securely. The structure's corrugated aluminum siding is in the process of being removed by winds. What remains should be removed to lessen the danger of damage (either to the public or to nearby buildings) resulting from their free flight. If the site is to be open to the public, the exterior siding should be replaced along with the outside personnel door that is presently missing.

Table 6: Target Ranging Radar Recommended Work

		Cost Estimate	
Feature	**Critical**	**Serious**	**Total**
Repair Int. Door	140		**140**
Replace Ext. Siding		3,570	**3,570**
Replace Ext. Door		415	**415**
Total	**$140**	**$3,985**	**$4,125**

Photograph 5: Target Ranging Radar. Note missing corrugated aluminum siding on the support tower. Target Tracking Radar is to the left behind the Battery Control Building.

Electrical Substation C (ANC-796)

This is a rectangular metal-framed building with corrugated aluminum siding and gabled roof. It measures approximately 20' x 52'. It is located 40 feet southwest of the Battery Control Building. The fenestration consists of a double leaf door centrally placed on the north elevation, a vent hood on the west gable end, and two small cupolas at the roof's ridgeline. The interior was inaccessible for review. This substation is still active and provides service to all facilities at the summit, including the abandoned Battery Control Building.

It is assumed that this building would not be part of any use for public interpretation of the site. Its use would continue as a substation under any scenario. It is unknown whether the electrical facility meets present electrical code requirements. No work is recommended.

High Power Acquisition Radar Building (HIPAR) (ANC-799)

This building was added in the fall of 1962. It is constructed of reinforced concrete and measures approximately 34' x 50'. This building is approximately 80 feet northwest of the Battery Control Building. It is in good condition. Whip communication antennas have been added around the roof perimeter. The interior of this building was not accessible for inspection.

It is assumed that this building is under lease by the various entities that have active communication systems on the site. Because of the use of this building for the active communications systems, public access would not be allowed under any scenario. No work is recommended.

High Explosive Magazine (ANC-800)

The High Explosive Magazine is located on the East Side of the road, 1.2 miles southwest of the Battery Control Building. The magazine, also known as an ordnance igloo, was designed to explode upward. The structure is poured reinforced concrete and measures approximately 24' x 40'. The front of the magazine is exposed concrete with an opening of 16' x 16' with two 6" thick metal doors. On either side of the doors are vents approximately 1.5' x 4', placed three feet above grade. The front exposed concrete has wings at either end that act as retaining walls for the earthen fill covering the structure at a 1-1/2:1 repose. An I-beam extends from the back of the magazine through the front doors and out approximately 16 feet to an I-beam supporting frame. This beam formed an overhead rail for handling high explosives stored in the magazine.

There are three of these identically designed magazines. This one is outside of the two main areas of the site and is not necessary for interior interpretation. It is in good structural condition and should be retained for proper site interpretation. The doors need to be secured to bar public access.

Table 7: High Explosive Magazine Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Secure Ext. Door	208		**208**
Total	**$208**		**$208**

Missile Magazine (ANC-801)

The Missile Magazine is on the East Side of the road, approximately 350 feet south of the High Explosive magazine. The magazine, also known as an ordnance igloo, was designed to explode upward. The structure is poured reinforced concrete and measure approximately 24' x 40'. The front of the magazine is exposed concrete with an opening of 16' x 16' with two 6" thick metal doors. On either side of the doors are vents approximately 1.5' x 4', placed three feet above grade. The front exposed concrete has wings at either end that act as retaining walls for the earthen fill covering the structure at a 1-1/2:1 repose. An I-beam extends from the back of the magazine through the front doors and out approximately 16 feet to an I-beam supporting frame. This beam formed an overhead rail for handling missiles stored in the magazine.

There are three of these magazines that are identical in design. This one is outside of the two main areas of the site and is not necessary for interior interpretation. It is in good structural condition and should be retained for proper site interpretation. Critical action that is necessary is to secure the doors to bar public access to the interior.

Table 8: Missile Magazine Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Secure Ext. Door	208		**208**
Total	**$208**		**$208**

Sentry Station 1 (ANC-802)

This building is located on the West Side of the road just northwest of the Launch area. It was the checkpoint for traffic traveling to the Battery Control area. Measuring approximately 9' x 12', it is constructed of creosote 12"x 12" timbers and has a gable roof with wood shingles. A personnel door is on the building's gable end that faces down the mountain. The remaining sides have window openings that at one time had 3/4" wired glass. The building is sited in the middle of the road, forcing arriving and departing traffic to pass on either side.

Structurally this building is in good condition. A major problem with it is the treatment of its timbers with creosote. This is a product that is harmful to the environment and there are no products on the market that can retreat timbers once they have been treated with creosote. Critical issues that need to be

addressed are the replacement of the missing windows and door. This needs to be done to insure the building is weather tight and secure from public access. If building is to be opened for public use, it will require new flooring and new interior paint.

Table 9: Sentry Station 1 Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Reglaze Windows	2,104		**2,104**
Replace Ext. Door	715		**715**
Replace Int. Flooring		274	**274**
Repaint Interior		454	**454**
Total	**$2,819**	**$728**	**$3,547**

Photograph 6 : Sentry Station 1.

Sentry Station 2 (ANC-803)

This station is located on the north side of the outer fence entrance to the Launch area. It is a wood framed building measuring approximately 6' x 8' and covered with plywood painted white. Its shallow sloped shed roof extends 2.5

feet beyond each wall plane. Fenestration consists of 1/1 double hung sash windows on each end wall, two 1/1 double hung sash windows on the back elevation, and a glazed personnel door and a 1/1 double hung sash window on the front facade.

Table 10: Sentry Station 2 Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Reglaze Windows	1,678		**1,678**
Replace Ext. Door	725		**725**
Repaint Exterior		270	**270**
Re-tile Interior Floor		195	**195**
Repaint Interior		333	**333**
Re-roof Building		1,675	**1,675**
Total	**$2,403**	**$2,473**	**$4,876**

Missile Maintenance Facility (ANC-804)

This facility is a one story, shallow gabled roof building that measures approximately 25' x 50'. It has a concrete foundation wall that extends above grade to form a three-foot pony wall. Above this, the building is metal framed with galvanized corrugated metal exterior sheathing and insulated metal panel interior finish. The building is open in the interior, giving a two story clear height. Fenestration consists of 8' x 12' overhead coiling doors placed on both sides of the building at the north end to form a pull-through and two personnel doors, one adjacent to the southern overhead door and the other in the west end gable wall.

This building is in remarkably good condition. The only major deficiency is the exterior galvanized corrugated metal siding is slowly being removed by winds. This should be replaced to insure the continued life of the building. Other concerns are the proper securing of the overhead coiling doors and the personnel doors to control access to the building. One coiling door is out of its track. With the exception of possible active electrical service to the building, this building could be made accessible to the public. It is a contributing building to the site and should be retained for interpretation of the site.

Table 11: Missile Maintenance Facility Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Repair Ext. Siding	1,332		**1,332**
Repair Ext. Doors	676		**676**
Total	**$2,008**		**$2,008**

Photograph 7: Missile Maintenance Facility's south elevation.

Vehicle Maintenance & Storage Building (ANC-805)

This is primarily a wood framed building measuring 40' x 61'. The back elevation's wall is placed within the hillside and is reinforced concrete to act as a retaining wall. The building was sided with cementos asbestos boards with wood battens. Fenestration consists of five overhead wood sectional doors in the front elevation and personnel doors on the side elevations. The building has a shallow sloped shed roof of asphalt-built-up-roofing.

The Vehicle Maintenance & Storage Building is in good structural condition. It is not necessary for this building to be made accessible to the public for interior interpretation. It is a contributing building to the site and as such should

be retained for exterior and site interpretation purposes.

Critical issues that threaten the building's life consist of the need to secure the building from public access and the weather. These issues primarily address the need to insure the section overhead and personnel doors are present and secure. Although not a critical issue as of yet, the asphalt built-up-roof requires maintenance before it fails and jeopardizes the integrity of the building.

Other issues that require addressing on the building's exterior are the need for it to be re-sided. Originally the building had cementos asbestos board over felt paper and the plywood sheathing. Only the plywood sheathing remains. Although the sheathing is adequate for keeping the weather out, the building should be resided at some point with material that would mimic the original.

If the building were to be made available to public access, issues that need to be addressed are the presence of failing lead paint, interior floor pit used for servicing under vehicles, and the electrical service.

Table 12: Vehicle Maintenance & Storage Facility Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Overhead Doors	5,550		**5,550**
Personnel Doors	1,149		**1,149**
Ext. Siding		7,707	**7,707**
Int. Floor		346	**346**
Repaint Int.		5,528	**5,528**
Repair Roofing		432	**432**
Total	**$6,699**	**$14,013**	**$20,712**

Sentry Station 3 (ANC-806)

This station is on the north side of the inner fence's gate to the Launch area. It is a wood framed building measuring 8' x 12'. Its shallow sloped shed roof extends approximately 2.5 feet beyond each wall plane. It is sheathed with plywood that is painted white. Its fenestration consists of 1/1 double hung sash windows on each end wall, 2-1/1 double hung sash windows on the back elevation and 2-1/1 double hung sash windows and a personnel door on the front elevation. A 4' high chain link fence forms a narrow passage that directs pedestrians against the station's front elevation.

The building is in good structural condition. Window glazing has been broken-out and the door requires replacement. These should be done to make the

building secure and prior to opening the site to public access. Work that is required to bring the building back to original condition, but is not require in the immediate future is, repainting of interior and exterior, re-tiling the interior floor, and replacing the roof.

Table 13: Sentry Station 3 Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Reglaze Windows	$3,356		**3,356**
Replace Ext. Door	725		**725**
Repaint Exterior		428	**428**
Re-tile Interior Floor		351	**351**
Repaint Interior		482	**482**
Re-roof Building		2,569	**2,569**
Total	**$4,081**	**$3,830**	**$7,911**

Photograph 8: Vehicle Maintenance & Storage Facility's front elevation. Note exposed wall sheathing and unsecured overhead doors.

Photograph 9: Sentry Station 3, front elevation. Note personnel fencing in front directing pedestrian traffic by sentry. Sentry Station 2 is similar.

Launching Control Building (ANC-807)

This building is located 50 feet southeast of the Vehicle Maintenance Shop and Storage Building. Its appearance suggests that it was constructed in three phases. The eastern most portion is a later addition, as the 1959 as-builts do not show it.

The central portion of the building is wood frame construction with plywood sheathing and sided at one time by cementos asbestos board. This portion, as all of the building, has a flat roof of asphalt-built-up-roofing. This central portion measures 60' x 97' and has a northwest/southeast orientation. The first 24 feet of the length is a clear two-stories and was the missile storage area. It has an overhead crane in the second story clear space. Overhead doors, each measuring 10' x 14' are placed on opposite elevations, creating a pull-through for bringing the missiles to and from the building. The remaining length is one-story in height with one personnel door placed adjacent to the overhead door on the building's northeast elevation. Three large double fixed single sash windows are on the southwest elevation. In this portion of the building, an open space adjacent to the

missile storage area was for missile repair and testing. The rest of the area had a latrine, parts room, first aid room, ready room, corridor, and office.

The southern 1/4 of the building is a reinforced concrete flat roofed building measuring 37' x 47'. It extends approximately 24 feet beyond the building's southwest elevation. This portion of the Launching Control Building contained rooms housing the launching control van, boiler room, pump room, and compressor room. A 15,000-gallon above ground water tank is adjacent to the northwest elevation.

The third portion is a concrete block, shed roofed building adjacent to the central portion northeast elevation. Fenestration consists of a personnel door flanked by a single light fixed sash widow on the southeast elevation and a single light fixed sash window on the northeast elevation. This portion of the building was added sometime between 1959 and 1963 and its function is unknown.

The Launch Control Building is a critical building for proper interpretation of the site. It is structurally in good condition. Critical issues that need to be addressed for general public access to the site are its exterior windows and exterior doors (both personnel doors and overhead sectional doors). The windows require reglazing, missing personnel doors replaced as well as the overhead doors. These are critical to secure the building from general public assess and to keep the building weather tight. A serious problem is the roofing that is beginning to fail. If it does not receive maintenance, it will require replacement in a number of years. This threatens the life of the building.

Other issues that need to be address on the building's exterior but are not critical at this time for the continued life of the building is its exterior wall surface material and finish. The stick-built portion of the building originally had cementos asbestos siding over felt paper and the plywood sheathing. The asbestos board and felt paper have been removed. If the building is to be reused, the building should be resided with a material that would mimic the original and the entire exterior of the building repainted to match original color scheme.

If the building is to be opened to the public a number of issues need to be addressed. These include the presence of failing lead paint, lack of plumbing, lack of a heating system, and lack of an electrical system that meets present codes. The Launch Control Building is a critical building for public use of the Launch area of the site in that it is the only building that had restrooms. If a major public program were developed for the site, these would require re-establishing to meet restroom facility requirements.

Table 14: Launch Control Building Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Reglaze Windows	1,892		**1,892**
Overhead Door	4,515		**4,515**
Personnel Doors	2,106		**2,106**
Ext. Siding		2,232	**2,232**
Int. Finish		27,940	**27,940**
Re-roof		136,779	**136,779**
Plumbing		18,200	**18,200**
Electrical		37,283	**37,283**
Heating		18,789	**18,789**
Ext. Painting		1,962	**1,962**
Int. Doors		2,495	**2,495**
Total	**$8,513**	**$245,680**	**$254,193**

Photograph 10: Launch Control Building. Note exposed exterior wall sheathing on wood frame portion of building and missing windows throughout.

Electrical Substation B (ANC-808)

This substation is located 40 feet northeast of the Launching Control Building. It is a metal framed, corrugated aluminum sided Butler Building that measures 24' x 27' and has a gabled roof. It still is an active electrical substation and should not be accessible to the general public. This building is in good condition and appears to receive maintenance when required. It is a contributing element to the site's interpretation and should be retained as such. No work is recommended.

Photograph 11: Electrical Substation B. . Substations D(1) and D(2) similar.

Dog Kennel (ANC-809)

This structure is approximately 350 feet south of the Launching Control Building. It is a frame building approximately 15' x 12' with a gable roof. It is equally divided into ten kennels, five to a side. Abutting the south elevation is a chain link fenced area that forms a dog run. The kennels are in ruin and should

be stabilized but not restored. It is a contributing element to the site's interpretation and should be retained as such.

Photograph 12: Dog Kennels

Missile Launch and Storage Building 1 (ANC-810)

This structure is constructed of reinforced concrete with tilt-up concrete panels. It measures 58' x 113'. A large concrete blast pad measuring 75' x 160' is adjacent to the front of the structure. Attached to the center of the rear wall is the plan control and personnel station. This is also reinforced concrete and measures 28' x 29'. A 27' x 7' concrete passage provides exterior access to the station. The entire structure is covered on three sides by earthen fill at a 1-1/2:1 repose. A 12' high earthen berm is in front of the blast pad.

The main interior area of the structure is an open space. At a sub-level below this main space is the mechanical equipment that ran the missiles out onto the blast pad for firing.

The missile launch and storage buildings are a critical structure for the proper interpretation of the site. Missile Launch and Storage Building 1 offers the best, of the two present, to provide interior interpretation. A number of

critical issues need to be addressed prior to allow general public access to the site. These include repairing the overhead coil doors on the front elevation and replacing the missing personnel door at the rear, both necessary for securing the structure from public access. If the structure is to be opened for public access, issues that need to be addressed are the electrical system, lead paint, open hatches in the floor, and emergency exits. A critical issue that needs to be addressed, but not related to public access, is the maintenance of the asphalt-built-up-roof. It is beginning to fail and if not addressed in the near future will fail completely and require replacement.

Table 15: Missile Launch and Storage Building #1 Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Overhead Door	1,642		**1,642**
Personnel Door	500		**500**
Int. Painting		4,777	**4,777**
Floor Hole Covers		308	**308**
Electric		45,605	**45,605**
Heating		35,344	**35,344**
Re-roofing		141,212	**141,212**
Total	**$2,142**	**$227,246**	**$229,388**

Electrical Substation D(1) (ANC-811)

This is a metal framed, corrugated aluminum sided Butler Building that measures approximately 14' x 24'. The substation's electrical equipment has been removed. This building does not offer any purpose for interior interpretation for the general public but does contribute to the site's interpretation. It should be maintained but not restored.

This building is in good condition. It is not necessary for the interior of this building to be open to the public for interpretive purposes. It is also not necessary for the functioning of future uses of the site. It is, however, a contributing element to the site. The substation should be retained with its exterior maintained to provide adequate site interpretation. Only deficiencies are the door and siding. The original door and frame were removed and the opening was re-framed and sided with plywood in an attempt to secure the building. Portions of the siding are missing due to its removal to gain entry into the building. Both of these deficiencies are a threat to the building in that they provide unauthorized access and compromise the building's weather tightness. Both deficiencies will require correction for general public access to the site.

Table 16: Electrical Substation D(1) Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Ext. Siding Repair	108		**108**
Ext. Door & Frame	757		**757**
Total	**$865**		**$865**

Electrical Substation D(2) (ANC-812)

This is a metal framed, corrugated aluminum sided Butler Building that measures approximately 14' x 24'. All electrical equipment has been removed from the substation. This building does not offer any purpose for interior interpretation for the general public and does not appear to be required for future site functions, but does contribute to the site's interpretation. It should be maintained but not restored.

The building is in good condition structurally. Only deficiency that is critical to address for public access on site is the need to replace the missing personnel door. At present the door frame is covered by plywood that has partially been removed. A new appropriate door should be placed to properly secure the building.

Table 17: Electrical Substation D(2) Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Ext. Door	1,112		**1,112**
Repair Siding	133		**133**
Total	**$1,245**		**$1,245**

Fuse and Detonator Magazine (ANC-813)

This earthen covered structure is constructed of reinforced concrete and measures approximately 9' x 10' x 6'. A 3' x 3' metal door is on its exposed concrete north facade. A vent on top provides air circulation through the

structure. This magazine is located equal distance from each of the Missile Launch and Storage structures, directly southeast of Missile Launch and Storage #1.

This magazine is not assessable to public use due to its size. It is in good condition and requires no major attention. The only feature that needs correcting is the replacing of its lightening arrester which lies close by. This is not a critical issue that threatens the life of the structure. Although it is not for public use, it is a contributing element to the site and should be maintained for its interpretation value as such.

Table 18: Fuse and Detonator Magazine Recommended Work

		Cost Estimate	
Feature	**Critical**	**Serious**	**Total**
Lightening Arrestor		195	**195**
Total		**$195**	**$195**

Photograph 13: Fuse and Detonator Magazine with Missile Launch and Storage Building 2 in background.

Missile Launch and Storage Building 2 (ANC-814)

This structure is constructed of reinforced concrete with tilt-up concrete panels. It measures 58' x 113'. A large concrete blast pad measuring 75' x 160' is adjacent to the front of the structure. Attached to the center of the rear wall is the plan control and personnel station. This is also reinforced concrete and measures 28' x 29'. A 27' x 7' concrete passage provides exterior access to the station. The entire structure is covered on three sides by earthen fill at a 1-1/2:1 repose. A 12' high earthen berm is in front of the blast pad.

The main interior area of the structure is an open space. At a sub-level below this main space is the mechanical equipment that ran the missiles out onto the blast pad for firing.

Missile Launch and Storage Building 2 is in good structural condition. It is a duplicate of Missile Launch and Storage Building 1 and need only be kept for its exterior interpretation. With this in mind, only those issues that threaten the life of the structure and those issues that need to be performed to secure the structure from public access need be addressed. The critical issue that needs to be addressed is the repair of the coiling overhead doors and the replacement of the rear personnel doors. These need to be made functional in order to secure the building from general public access. A serious problem that will become critical in the future is the need to perform maintenance on the asphalt-built-up roof. It is beginning to fail and if repaired soon, will fail to a point where it will require replacement.

Table 19: Missile Launch and Storage Building #2 Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Overhead Door	1,642		**1,642**
Personnel Door	500		**500**
Int. Painting		4,777	**4,777**
Floor Hole Covers		308	**308**
Electric		45,605	**45,605**
Heating		35,344	**35,344**
Re-roofing		141,212	**141,212**
Total	**$2,142**	**$227,246**	**$229,388**

Photograph 14: Missile Launch and Storage Building #2. Missile Launch and Storage Building #1 similar.

Missile Warhead Magazine (ANC-815)

The Missile Warhead Magazine is located approximately 300 feet southeast of the Missile Launch and Storage Building #2. The magazine, also known as an ordnance igloo, was designed to explode upward. The structure is poured reinforced concrete and measure approximately 24' x 40'. The front of the magazine is exposed concrete with an opening of 16' x 16' with two 6" thick metal doors. On either side of the doors are vents approximately 1.5' x 4', placed three feet above grade. The front exposed concrete has wings at either end that act as retaining walls for the earthen fill covering the structure at a 1-1/2:1 repose. An I-beam extends from the back of the magazine through the front doors and out approximately 16 feet to an I-beam supporting frame. This beam formed an overhead rail for handling missile warheads stored in the magazine.

This magazine is in good structural condition. Of the three magazines, this is the one that should be maintained for public interpretation. The major

deficiency is the door. One leaf of the door is totally off its hinges (hinges have sheared) and the second's hinges are beginning to fail. The sheared leaf should be rehung and the other's hinges rewelded. The door should be secured to limit access to the interior. Other issues that should be addressed prior to allowing interior access to the public are the graffiti and electrical system.

Table 20: Missile Warhead Magazine Recommended Work

	Cost Estimate		
Feature	**Critical**	**Serious**	**Total**
Ext. Door	1,835		**1,835**
Int. Graffiti		883	**883**
Total	**$1,835**	**$883**	**$2,718**

Photograph 15: Missile Warhead Magazine. Not debris associated with military training exercises around entry and on top. Right door leaf is lying on the ground. High Explosives and Missile magazines are similar.

Apppendix E: Form Letter for Notification of Advisory Council of Consultation

[Name]
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue, Room 809
Washington, D.C. 20004

Dear [Name]:

United States Army Alaska (USARAK) is [planning/considering/other] the [name of undertaking]. In consultation with the Alaska State Historic Preservation Office (Alaska SHPO), we have applied the criteria of effect and adverse effect found in 36 CFR Part 800.9 of your regulations and determined that the undertaking will have an adverse effect on historic properties. In accordance with 36 CFR Part 800.5(e), USARAK requests the Advisory Council to consider participation in the consultation process. Due to this determination of an adverse effect, we are initiating formal consultation between USARAK, Alaska SHPO, and the following interested parties: [i.e., traditional cultural groups, local preservation groups, applicants for permits].

The following documentation is provided for each consulting party:

- a description of the [name of the undertaking], including [specific maps, photographs, etc];
- a description of efforts we made to identify historic properties in the undertaking's area of potential effects, including [specify survey, report, etc.];
- a description of the historic [property/properties] that [will/may] be affected, including [specific National Register forms or other evaluative documents]; and
- a description of the effect of the undertaking on historic [property/properties].

In addition, we propose the following means of soliciting the view of Alaska SHPO and the following interested parties [specify affected local governments, Native Alaskan entities, Federal agencies, elements of the public, if any]. [Describe means of soliciting public comment].

This consultation process will hopefully result in a Memorandum of Agreement among USARAK, Alaska SHPO, and other interested parties [designated interested parties considered by signing of MOA] which will result in the avoidance of significant properties or reduce the effects of this undertaking on significant properties.

Sincerely,

APPENDIX F Environmental Assessment, Notice of Availability and Comment Period and Finding of No Significant Impact

DEPARTMENT OF THE ARMY

UNITED STATES ARMY ALASKA

Environmental Assessment for the Implementation of the
Integrated Cultural Resources Management Plan

Fort Richardson, Alaska

September 2001

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction

This Environmental Assessment (EA) is prepared in accordance with the National Environmental Policy Act (NEPA), its implementing regulations published by the Council on Environmental Quality (40 CFR 1500-1508), and Department of the Army Regulation (AR) 200-2, 'Environmental Effects of Army Actions'. NEPA requires U.S. Army Alaska (USARAK) to consider and document potential environmental impacts of its proposed actions and provide for public and agency participation prior to deciding on the final action.

Cultural Resources on Fort Richardson consists of archaeological sites and historic properties. The latter includes most buildings on the Cantonment area as they are 50 years of age or older.

1.2 Installation Description

Fort Richardson is headquarters for USARAK. The installation comprises 61,000 acres in Southcentral Alaska. The Fort Richardson Cantonment area is located approximately 7 miles northeast of downtown Anchorage along the Glenn Highway. The Glenn is the major highway leading north from Anchorage and it divides the installation into halves, namely, the North Post and South Post. The installation is bounded by urban areas of Anchorage to the southwest and Eagle River and Birchwood to the northeast, the Chugach Mountains on the southeast and Knik Arm of Cook Inlet on the north.

1.3 Purpose and Need

USARAK has prepared a five year comprehensive plan for the management of its cultural resources on Fort Richardson during the period 2002-2006. This EA assesses the environmental impacts for the implementation of the Integrated Cultural Resources Management Plan (ICRMP). The ICRMP provides guidance and procedures to enable USARAK to meet its legal responsibilities at Fort Richardson for identification, evaluation, and protection of cultural resources while causing the least interference with the military mission. This EA will evaluate the proposed action and two alternatives. The proposed action or 'Full Implementation Alternative' complies with Army Regulation 200-4, Cultural Resources Management and other federal statutes, regulations, Executive Orders and Presidential Memoranda (Appendix). The 'No Action' Alternative

would continue to manage the cultural resources on Fort Richardson without an approved plan. The second alternative, the 'Partial Implementation Alternative' would implement only parts of the comprehensive ICRMP. Examples would be to implement only the section on historic buildings on the Cantonment area or the archaeological sites on the installation.

1.4 Decision

With the completion of the EA and input from federal, state, local agencies and the public, USARAK will analyze and evaluate the environmental impacts associated with the Army's proposed action of implementing an ICRMP on Fort Richardson. A decision will be made to determine if implementing the proposed action will or will not constitute a major federal action significantly affecting the quality of the human environment. If the final conclusion is negative (no significant impacts), a Finding of No Significant Impact (FNSI) will be prepared and signed. If the final conclusion is positive (significant impacts), the preparation of an Environmental Impact Statement (EIS) will be required.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 'No Action' Alternative.

The 'No Action' Alternative would maintain the status quo management style for cultural resources on Fort Richardson. Currently, cultural resources are managed on an ad hoc approach without a plan to guide consistent goal driven policy. The 'No Action' Alternative does not comply with AR 200-4 as it requires each installation to prepare and implement an ICRMP by 2001.

2.2 Proposed Action or Full Implementation

The proposed action is to implement an Integrated Cultural Resources Management Plan on Fort Richardson during the period 2002 through 2006. The plan provides guidance and procedures to enable USARAK to meet its legal responsibilities at Fort Richardson for identification, evaluation, and protection of cultural resources while causing minimal disruptions to the military mission. The plan includes Fort Richardson's goals and responsibilities, an installation cultural resources inventory, a protection plan, consultation requirements, an implementation plan, and references.

2.3 Partial Implementation Alternative

This alternative would be to implement only selected parts of the ICRMP. Examples would be to initiate an archaeological inventory on the installation, or a Historic Property Inventory for the Fort Richardson Cantonment area. Another example is to continue working with the Nike Site Summit Task Force to protect, maintain, and manage this National Historic District. The proposed action will probably be implemented in a phased manner as described above due to manpower and funding limitations. However, the proposed action comprehensively includes all cultural resources responsibilities on Fort Richardson. The advantage of the proposed action over the partial implementation alternative is that USARAK will not have to individually prepare plans and environmental documents for each part. The most important advantage of the proposed action is that there is a cohesive plan with vision for the total cultural resources responsibility and compliance with applicable regulations.

3.0 ENVIRONMENTAL IMPACT ASSESSMENT

3.1 Current Conditions and the 'No Action' Alternative

There would be minimal environmental impact with continuing the status quo or 'No Action' Alternative on Fort Richardson. The only active and continuing projects would be stabilization and maintenance of Nike Site Summit Historic District and assisting the Nike Site Summit Task Force in developing management options for the future use of the site. A leaking roof was replaced on the Battery Control Building on the Nike Site in summer 2002. Environmental impacts were minimal. Damaged roofing materials removed from the building were hauled off site to the Municipality of Anchorage Landfill.

One management option for Nike Site Summit is opening the site to the public for historic interpretation. If this materializes, a supplemental environmental document will be needed to assess the impacts and provide agencies and the public an opportunity to comment and provide input.

An archaeological field survey and a written report on historic homesteads were also completed in summer 2002 with little or no environmental impacts. The homestead sites with standing structures were visited. Remnants of the structures were surveyed and documented and photographs were taken.

If funding becomes available, contracts could be awarded for the evaluation of the eligibility of historic properties on the Fort Richardson Cantonment for the National Register. This evaluation would result in little or no environmental impacts.

3.2 Proposed Action or Full Implementation

Full implementation of the ICRMP would result in minimal environmental impacts. In addition to the status quo management of cultural resources on Fort Richardson, new projects would be limited to archaeological reconnaissance surveys. These field surveys would be expected to have minimal impacts on the environment. Environmental impacts would be of greater consequence if a major archaeological site was discovered and a decision was made to perform an intensive investigative effort. The latter, no doubt, would require supplemental environmental documentation and agency and public input.

In summary, cultural resources surveys of historic properties and archaeological reconnaissance surveys will result in minor environmental impacts. Mitigation for the archaeological surveys would require restoration of the disturbed site including revegetation efforts.

3.3 Partial Implementation Alternative

The environmental impacts associated with this alternative is programmatic and is dependent upon the specific action to be accomplished. Archaeological reconnaissance surveys may result in minor environmental impacts.

4.0 CONCLUSION

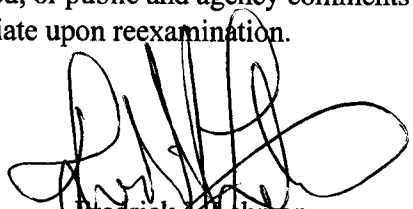
Implementing the proposed action and the preferred alternative as discussed in the body of this assessment will not cause significant impacts on the environment.

NOTICE OF AVAILABILITY AND COMMENT PERIOD

The National Environmental Policy Act (NEPA) of 1969 is implemented by Army Regulation (AR) 200-2, Environmental Effects of Army Actions, December 1988. Chapter 5 of AR 200-2 authorizes the preparation of a Finding of No Significant Impact (FNSI) after a review of the Environmental Assessment (EA) indicates that an Environmental Impact Statement (EIS) is not required.

ACTION: The proposed action is the implementation of an Integrated Cultural Resources Management Plan (ICRMP) on Fort Richardson during the period 2002 through 2006.

ENVIRONMENTAL DOCUMENTS: An EA and FNSI have been prepared for the proposed action. Copies of these documents are available upon request. Interested parties are invited to submit in writing, any comments or objections they may have concerning the proposed action and environmental evaluation. Comments received will be reviewed and relevant issues will be addressed and incorporated in the final revised EA. For further information, please contact Mr. Russell Sackett at Headquarters, U.S. Army Alaska, Environmental Resources Department, Fort Richardson, Alaska. Telephone (907) 384-3041. Email is russell.sackett@richardson.army.mil.
SUPPLEMENTAL INFORMATION: An EA is prepared to determine the extent of environmental impacts of a proposed action and to determine if the impacts are significant. Actions with significant impacts require the preparation of an EIS. If review of the EA shows that there are no significant impacts associated with the proposed action, a FNSI will be prepared. Either conclusion, the preparation of an EIS or a FNSI, satisfies NEPA compliance. A FNSI is a document that briefly provides the rationale why a proposed action will not have a significant effect on the quality of the human environment. The FNSI also documents the decision that an EIS is not required. A FNSI is completed when no comment period is necessary, a comment period was held but no significant comments were disclosed, or public and agency comments resulted in reconsideration of the FNSI, which was still appropriate upon reexamination.



Fredrick J. Lehman
Colonel, U.S. Army
Garrison Commander

FINDING OF NO SIGNIFICANT IMPACT

A Finding of No Significant Impact (FNSI) is prepared after reviewing an Environmental Assessment (EA) for an action which does not require an Environmental Impact Statement (EIS) per Army Regulation 200-2, Chapter 5.

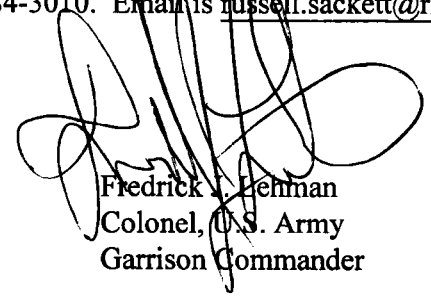
TITLE OF ACTION: Implementation of the Integrated Cultural Resources Management Plan (ICRMP) on Fort Richardson, Alaska

DESCRIPTION OF ACTION: U.S. Army Alaska (USARAK) proposes to implement an ICRMP on Fort Richardson during the period 2002 through 2006. The ICRMP provides guidance and procedures to enable USARAK to meet its legal responsibilities at Fort Richardson for the identification, evaluation, and protection of cultural resources while minimizing military mission conflicts.

ANTICIPATED ENVIRONMENTAL EFFECTS: Full implementation of the ICRMP would result in conducting historic property surveys and inventories in the Fort Richardson Cantonment area and archaeological reconnaissance surveys in all high probability areas. These actions would not result in anything beyond minor environmental impacts. If a major archaeological site was discovered and a decision was made to conduct further intensive investigations by excavation of the site, this could lead to larger environmental impacts. However, this type of project would require new or supplemental environmental documentation along with agency and public input. The same scenario would apply to the Nike Site Summit Historic District if the Task Force recommends the opening of the site to the public for historic interpretation. Additional environmental documents will be prepared to assess the impacts of such an action.

CONCLUSION: Based on a review of the environmental impact analysis in this Environmental Assessment, it is concluded that the implementation of the ICRMP during the period 2001 through 2005 will not constitute a major federal action significantly affecting the quality of the environment and, therefore, does not require the preparation of an Environmental Impact Statement.

POINT OF CONTACT: Requests for further information or submittal of comments may be made to Mr. Russell Sackett, Headquarters, U.S. Army Alaska, Directorate of Public Works, Environmental Resources Department, Building 724, Fort Richardson, Alaska 99505-6500. Telephone is (907) 384-3010. Email is russell.sackett@richardson.army.mil.



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